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ABSTRACT

This handbook, which is designed to promote cooperation between classroom teachers and teacher aides, discusses the role of the aide, aides' understanding of children, communication and learning, the classroom environment, and evaluation of job performance. The section on the role of the teacher aide includes an organizational chart of the school system, and information about interpersonal relationships and the aide in the classroom. The section about understanding of the child provides information about human behavior and development, including physical, mental, emotional, and social growth. The section on communication and learning explores foundations for literacy; use and development of language in school; the source of language development; the teacher aide's role; the linking of spoken and written language; function and form of language; functional and meaningful experiences; the process of asking young children questions; conferencing; language experience; and activities for learning to communicate. The section about the classroom environment discusses the relation of the environment to the quality of learning; classroom work stations and collectibles for them; examples of work stations; activities with blocks; work stations organized around housekeeping activities; and other kinds of work stations. Appendices provide related materials, such as finger plays, citations of books for pattern writing, and references to related reading. (RH)

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Aide-ing in the Classroom

A Handbook for Teacher Aides

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Aide-ing in the Classroom

A Handbook for Teacher Aides

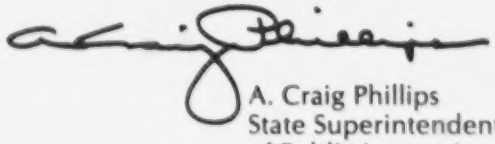
DIVISION OF COMMUNICATION SKILLS
NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION

Foreword

Aides in the classroom have come a long way from the early modest beginning with the introduction of the kindergarten program to where they are today. There are over 3,200 aides serving the schools of North Carolina in kindergarten and grades 1, 2, and 3. This is a tremendous investment on part of the people of North Carolina and further, it lets us know the value placed upon the process of early childhood education in this "The Land of the Long Leaf Pine."

It is the desire of the State Agency to further enhance the investment of our state through capturing most of what you do so well on the pages of this handbook. It will then serve as a guide for those new to the process of aide-ing and a reminder for those who are veterans of the program.

This document is produced for the purpose of being used in that unique relationship of a teacher and aide. It is not designed to be used without the pre-planning that occurs between two helping relationships. This type of cooperation is the strength of the aide/teacher program. We hope this document serves you well in this aspect of your working relationship.



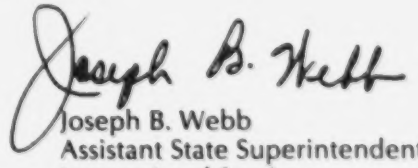
A. Craig Phillips
State Superintendent
of Public Instruction

Preface

Since the full implementation of the Primary Reading Program was completed, staff development activities for aides were discontinued from a state-wide focus. Many of you have shown us where we failed to meet your needs by this discontinuance. We have heard your message. The development of this handbook and the training which will support its introduction to you is our response to your message. It is our desire that the introduction involves you and the teacher.

It is very important that the teacher and aide understand the design of this document. The greatest use of it will come from cooperative planning between the teacher and aide. Should it come to be that both the teacher and aide cannot share in its introduction, each trainer will stress the importance of pre-planning between the teacher and aide with participants in the training activity. The returns from use of this handbook will be many fold if cooperative planning takes place before its use in the classroom.

As mentioned elsewhere in these introductory pages, this document supports and enhances the content of **The Teacher Handbook**. Both documents are appropriate for use when the teacher and aide plan their instructional day or week. Team working, cooperating, pre-planning, and reviewing will make the aides handbook a useful support tool for the teacher, aide, and the instructional program.



Joseph B. Webb
Assistant State Superintendent
Instructional Services

Introduction

The Elementary and Secondary School Reform Act of 1984 provided the impetus for the development of the revised **North Carolina Standard Course of Study** and its companion, **The Teacher Handbook.** These documents become a framework for the delivery of what students should know in an integrated learning format — the curriculum.

This handbook for aides continues that same focus. Its design is to provide a guide for the very important work you do in the instructional program in a structured, integrated fashion. The text is written to promote a theme of inter-relatedness of the subject matter as well as promoting the teacher and aide as a team in the classroom delivery of instruction.

Integrated learning and integrated team work holds a great deal of promise for students and instruction in our classrooms. As we watch you in your role as a team member in the teaching-learning process, we become aware of a powerful relationship which has made a difference in our primary program. Thus, this handbook is a tribute to what you do.

Time has provided us with an accurate assessment of the valuable support system that aides have become in the teaching-learning act in our primary classrooms. The handbook attempts to capture the valuable service you render. Further, it takes those points you consider to be most important and puts them into one collection of many thoughts. This centralized reference then becomes a tool to support what you do well on a day-to-day basis and a model for those who wish to become an effective resource—aide-ing in the classroom.

We appreciate the contribution you make. We appreciate your participation in the classroom. You have provided us with an opportunity to show our appreciation through this document. We hope that our attempt to highlight what you do is equal to your demonstration of how a person comes to be an effective aide.

Charles H. Rivers

Charles H. Rivers, Director
Division of Communication Skills

Acknowledgements

The Division of Communication Skills acknowledges with gratitude the invaluable support and assistance we have received from our colleagues and associates in the planning and development of the handbook for teacher aides, *Aide-ing in the Classroom.*

We wish to express a special thanks to:

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- The Raleigh-based and regional staffs in the divisions of Arts Education, Physical Education, Mathematics, Science and Social Studies for contributing and reacting to the content presented.
- The Division of School-Community Relations for technical assistance in the publication of the handbook.
- The Division of Personnel Relations for use of the Performance Appraisal Criteria Instrument for evaluating Teacher Aides.
- The Division of Media Production Services for the photography.
- Janet Mangum and Julia Dancy who did an outstanding job in word-processing the handbook.
- David Holdzkom for reading and editing the document.
- The committee who planned and developed *Aide-ing in the Classroom*; Becky Johnson, Laura Mast, Betty Moore, Shirley Owen, and Mary Purnell, Chairperson.

Contents

Foreword i

Preface ii

Introduction iii

Acknowledgements iv

You Are The Aide 1
- Your Role in the School System 2
- Your Role in Interpersonal Relationships 3
  - Relationships with Colleagues 3
  - Relationships with Students 4
  - Handling Inappropriate Student Behavior 5
- Your Role in the Classroom 6

Understanding the Child 7
- Today's Child 8
- Human Behavior 8
- Areas of Development 8
  - Physical Growth 9
  - Mental Growth 10
  - Emotional Growth 12
  - Social Growth 13

Communicating and Learning 15
- The Foundation for Literacy 16
- Using and Developing Language in School 16
- The Source for Language Development 16
- The Teacher Aide Role 17
- Linking Spoken and Written Language 18
- Function Over Form 18
- Functional Meaningful Experiences 18
- Asking Questions of Young Children 20
- Conferencing 21
- Language Experience 22
- Activities for Learning to Communicate 23
  - Finger Plays 23
  - Choral Speaking 23
  - Pattern Writing 25
  - Puppets 25

Classroom Environment 29
A Place for Learning 30
Classroom Work Stations 31
Collectibles for Work Stations 33
Examples of Work Stations 34
Activities with Blocks 36
Housekeeping Activities Work Stations 44

Evaluation 63
How Well Am I Doing 64
Job Description — Teacher Aide 65
Performance Appraisal Criteria — Teacher Aide 66
Sample Evidences — Teacher Aide 68

Appendices 71
Finger Plays 72
Choral Speaking 79
Books for Pattern Writing 82
References — Pamphlets 83
Children's Books 84
Professional Books for Instructional Aides and Teachers 87

You Are The Aide

- **Your Role In The School System**

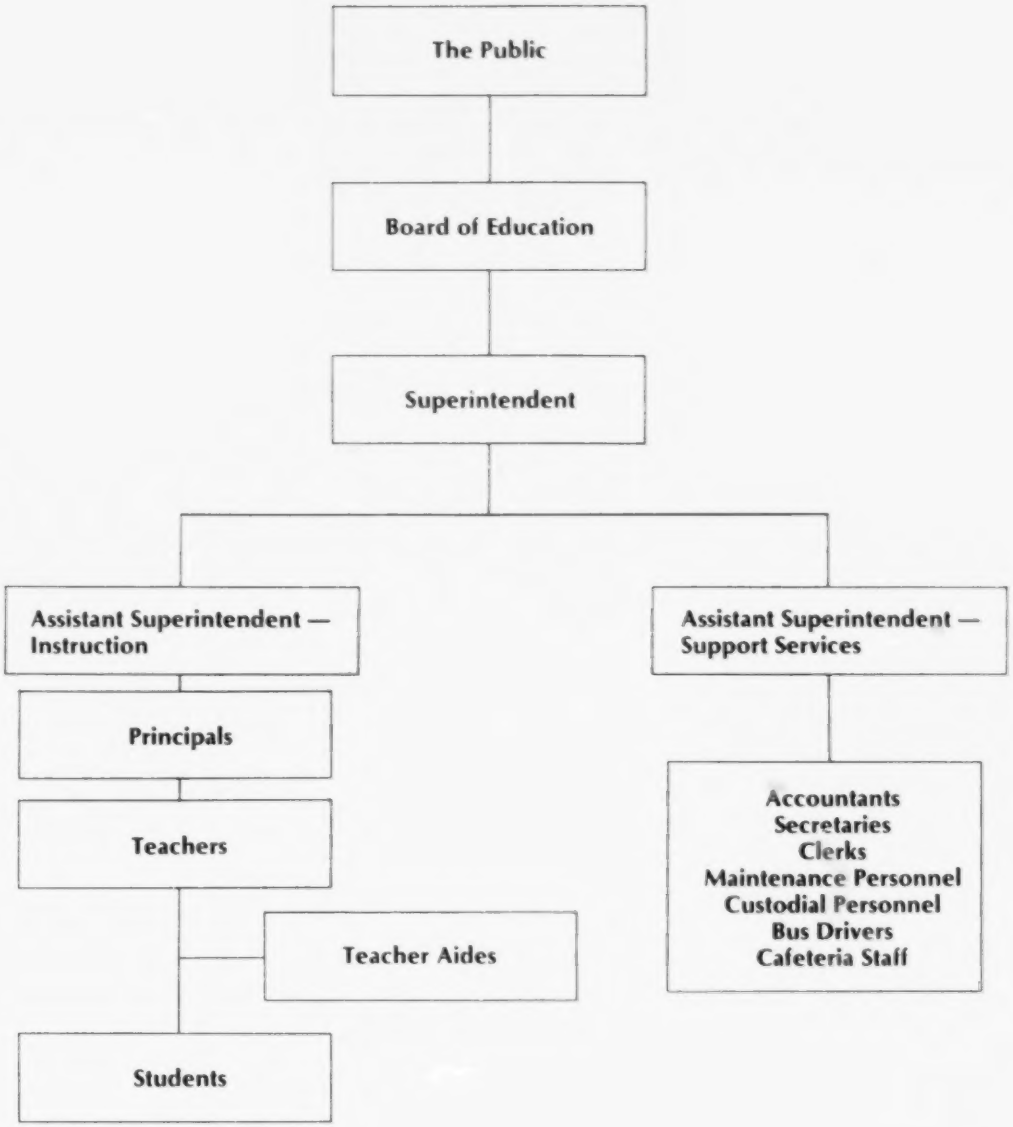
- **Your Role In Interpersonal Relationships**
  - **Relationships With Colleagues**
  - **Relationships With Students**
  - **Handling Inappropriate Student Behavior**

- **Your Role In The Classroom**

Your Role In The School System

As you become a part of the school system, you should know how the system is organized, who the people in the system are, and how you and your job fit into its framework.

The typical organization of a school system or local education agency is shown below.



Your Role In Interpersonal Relationships

How you communicate with other people, both verbally and non-verbally, affects your relationships with them. Good, effective communication produces satisfying relationships that foster good mental health. Five components that contribute to effective interpersonal relationships are briefly descibed below.

1. **An adequate self-concept**
   The most important single factor affecting people's communication with others is their self-concept—how they see themselves and their situations. A strong self-concept, necessary for healthy and satisfying interaction, is built when people experience love, respect, and acceptance from others significant in their lives. Even as a person's self-concept affects his ability to communicate, so his communication with others shapes his self-concept.
2. **The ability to be a good listener**
   Hearing is done with the ears, while listening occurs when the listener recognizes and understands the speaker's meaning. An effective listener listens not only to words but to the meanings behind the words.
3. **The skill of expressing one's thoughts and ideas clearly**
   A person who can communicate his meaning effectively to others has a clear picture in his mind of what he is trying to express. He can clarify and elaborate what he says so he is not misunderstood.
4. **The ability to cope with emotions, such as anger, in a functional manner**
   People need to express their feelings in such a manner that they influence, affirm, reshape, and change themselves and others. They need to learn to express angry feelings and happy feelings constructively rather than destructively.
5. **The willingness to disclose oneself to others**
   The ability to talk truthfully and fully about oneself is necessary for effective communication. People who are free and able to express their thoughts and ideas, expose their fears and frustrations, admit their failures and shames, and share their joys and triumphs understand who they are and what they can become.

Those who demonstrate these basic components of effective interpersonal relationships develop understanding, trust, respect, and cooperation that are necessary in order to work well together.

A. Relationships With Colleagues

Every effort must be made to develop and maintain a good team relationship with your colleagues, especially with the teacher(s) to whom you are assigned. Teachers and aides who demonstrate harmonious interaction create an environment that models and nurtures the same for children. Below are some good practices to follow.

- Have a caring, friendly, and positive attitude toward all co-workers.
- Show common courtesies and respect for the rights, feelings, and opinions of others. Help foster others' dignity by recognizing their individual worth and accepting their differences.
- Conduct yourself in a responsible manner. Be dependable and reliable; use self control in handling your emotions.
- Maintain professional and ethical conduct at all times to present a favorable image of yourself. Avoid criticism of others. Use discretion when speaking of your colleagues or the school. If you say anything about them, say something positive.
- Keep confidential any personal information learned about students or co-workers, e.g., test scores, problems, personalities. You can talk about professional things, but personal information is best left with the individual(s) concerned.
- Follow the school's philosophy, objectives, rules, and procedures in the same manner as other staff members.

- Know the organizational structure and the roles and responsibilities of your colleagues. Ask questions and discuss problems with the appropriate designated personnel in the school. Follow the proper channels when making suggestions or initiating activities.
- Adhere to the lead teacher's classroom procedures and standards of behavior for students. Support her/him in implementing them.
- Contribute appropriately to staff and school-wide activities. Lend a helping hand when needed. Share responsibilities.
- Be willing to learn new things from your colleagues; they will help you grow professionally. Effective ways of working with children require continuous learning.
- Accept constructive criticism as helpful comments for improving your work performance. Follow suggestions made without feeling resentful.

B. Relationships With Students

It is essential that you have good relationships with students on an individual, group, and class basis. These relationships will be enhanced when good classroom management exists. Your actions and the ways you interact with children play an important part in maintaining good classroom management; this is necessary for achieving a proper learning climate. Below are some tips that will help you do this.

- Have a genuine liking for children.
- Be genuinely warm and friendly; show simple gestures of caring, e.g., smile, pat on back.
- Be positive, courteous, firm, fair, and consistent in your expectations and reactions; these actions earn respect.
- Deal justly and impartially with them, regardless of their economic, social, racial, or religious background. Give equal opportunities and attention to all of them.
- Recognize their educational differences and seek to meet their individual needs.
- Show a sincere interest in the things they approach you with; value them as they do. These times may be some of the most effective "teachable moments."
- Be a good listener. Accept their ideas as worthwhile.
- Talk **with** them rather than **to** them.
- Use a natural tone of voice — the voice of an adult.
- Be patient and sympathetic; they have bad days, too.
- Give honest, specific, and deserved praise for their efforts and successes. Make sure each child gets praise at some time. Try using a variety of praise phrases, e.g., "Why don't you share that with the class?" "Let's put this on the bulletin board." "Your parents will be proud of you for that!" "That's an interesting idea."
- Have a sense of humor; laughter is a necessity when working with children.
- Keep your promises. If you promise to bring a magazine, don't forget. They won't.
- Expect them to fantasize or tell you tall tales. This is normal for young children. While you may not believe them or might even be shocked, don't show it. Likely, they are trying to get attention; give them some for the moment.
- Expect some to try out street language (some may hear it at home). Avoid criticizing the home. Tell them there is a more appropriate language to use at school and it is . . .
- Model good language patterns. Children learn appropriate language from the language you use.
- Adhere to a daily schedule, routine, procedures, and class standards. However, be flexible when appropriate. Take advantage of "teachable moments."
- Set a good example for students by always showing respect for the lead teacher, other school personnel, and parents.
- Use the school day for purposeful work. It is easier to maintain discipline when students are busy at tasks that are worthwhile and ones which make extensive use of manipulatives.
- Make good use of waiting time, e.g., waiting for lunch or waiting for another class to leave the library so your class can go in. Engage them in "sponge activities" — instructional activities that take 2 - 5 minutes, e.g., name rhyming words or do a finger or action play.

- Provide a variety of activities, alternating vigorous physical activities with quiet activities or rest.
- Consider children's interests and aptitudes when organizing work groups.
- Be available for them to talk with you about their problems, interests, and activities.
- Preserve your own mental health by getting plenty of rest, having a sense of humor, having good grooming and health habits, and asking for help when you need it.
- Help students work toward the goal of developing self-discipline. Encourage them to control their own actions, using self-restraint without your constant direction. A few basic classroom rules, thoroughly understood by the children, are valuable for developing self-discipline.
- Scan the group with your eyes frequently to know what is happening in the entire room at all times. Anticipate problems and move toward potential trouble spots. Stop the little things before they mushroom.
- Take time to deal with problems as they arise.
- Follow the disciplinary measures used by the lead teacher. Make adjustments only if he/she agrees.

C. Handling Inappropriate Student Behavior

Even though you maintain good classroom management, there are times when some students' behavior is inappropriate. In those cases, it is helpful to learn the causes; children's misbehavior can usually be attributed to specific reasons. If you can determine these reasons, you can help them to develop better self-control. The most important action you can take to help troublesome children is to establish a warm, close relationship with them. After you have developed rapport, you are in a position to determine the root causes of their misbehavior, and you have a far better chance of dealing with them effectively.

Below are suggestions for handling inappropriate behavior.

- Be calm and objective; hold your temper.
- Refrain from embarrassing the student by making pointed remarks in front of others. Take the child aside and speak in private about the misbehavior, e.g., "Your loud voice is interrupting the class."
- Separate your attitude toward the student from your attitude toward the behavior. Let the child know that you are dealing with this behavior because you care, and that you still care for him/her even though you do not like what was done.
- Help the student evaluate the problem. Help determine the facts rather than giving only opinions.
- Avoid making unreasonable demands, using sarcasm or ridicule, using threats, and having an "I-dare-you-to-do-it again" attitude that may challenge some students to try you out.
- Be fair, firm, and consistent; expect cooperation.
- Point out something positive about the child.
- Indicate your confidence in the student that the behavior will improve or that inappropriate behavior will not reoccur.
- Follow your school and school system's discipline policy.
- Drop the matter when it is settled without holding grudges.
- Never punish the entire group for something done by only one or two students in the group.

Your Role In The Classroom

As the instructional aide, your primary function and responsibility is to increase the effectiveness of the teacher in the classroom. You can expect to be called upon to do a variety of tasks to assist the teacher with the preparation, presentation, and coordination of classroom activities. You will find that assignments may vary according to the needs of the students and teachers with whom you work. However, the duties mentioned below may give you some idea of the tasks you may be asked to perform.

- Assist students in performing activities that have been initiated by the teacher.
- Assist students with supplementary work and activities.
- Reinforce learning with small groups.
- Prepare lessons or plan for an activity in which a student has special interests or talents.
- Reinforce the teacher's activity with individual students or small groups.
- Tutor children on a scheduled basis. (The teacher will diagnose problems and recommend appropriate remediation.)
- Assist students with their reports and research activities during the library period.
- Prepare charts of experience stories that students have written or dictated to you.
- Assist the teacher in providing students an opportunity to engage in learning activities of their choice.
- Ask questions of students that will stimulate their thinking and learning skills.
- Provide special help such as drilling with flash cards, spelling, and play activities.
- Respond to requests for help with work, observe learning difficulties of pupils, and report such matters to teachers.
- Listen to needs and concerns of pupils.
- Score objective tests and papers and keep appropriate records for teachers.
- Check attendance and permission slips when requested by the teacher.
- Monitor the administration of tests.
- Work with special programs such as dramatizations, puppetry, and assembly programs.
- Accompany groups of students when they attend special programs and take field trips.
- Read stories and poems to total class or groups.
- Assist in decorating room, cutting mats for pictures, changing pictures on bulletin boards, and mounting pupils' work for display.
- Type materials, e.g., bibliographies, lists, notices, class materials.
- Duplicate tests and other materials.
- Prepare routine reports not requiring professional judgments.
- Collect and prepare records of money brought by students for various purposes.
- Assist in maintaining and ordering supplies and materials.
- Operate and maintain equipment such as film projectors, overhead projectors, and record players.
- Check lighting and ventilation and make adjustments when necessary.
- Supervise groups of students to and from their designated places.
- Assemble materials and equipment needed by the teacher and store them after their use.
- Obtain materials and resources for students working on projects.
- Assist with indoor and outdoor activities in physical education.
- Give individual help to new students and to students who have been absent from school.
- Help students beome familiar with the procedures to follow in a school emergency such as a fire drill or first aid.

Understanding The Child

- **Human Behavior**

- **Areas of Development**
  - **Physical Growth**
  - **Mental Growth**
  - **Emotional Growth**
  - **Social Growth**

Today's Child

The child of today faces a world permeated by high technology, varying family patterns, and education that includes all parts of the world. Space travel, computers, intercontinental travel, environmental pollution, a population explosion, and the threat of nuclear warfare are only a few of the opportunities and problems facing the child now and in the future. These children represent a multitude of cultural and economic backgrounds.

Children are all different. They may be round, plump, skinny, or tall. They may cry a lot, often look unhappy, smile a lot, be quiet or active, be naughty and difficult to understand, or be easy to manage and fun to be with. They grow and change. They want to be understood. Children also want to explore and discover things such as water and how it splashes, spills, and disappears in sand. They work hard at lining up rows of stones; filling a pan with dirt; watching cars go by; and are fascinated when a fly buzzes against a window pane. Important ideas about children come when they are observed closely and with care. The education of these children is a tremendous task if they are to learn how to solve problems and to cope in this complex society.

Human Behavior

The child in the primary grades (K-3) has basic needs and drives as he/she explores the world. Biologically, he/she needs rest, sleep, food, comfort, freedom from pain, physical contact, and recreation. Socially and emotionally he/she needs to investigate, achieve, belong to a group, love and be loved, develop independence, and deal with negative feelings, laughter, and joy.

When these needs and drives are satisfied, the child feels secure. If not, he/she becomes restless, frustrated, or tense. It is natural for him/her to seek satisfaction by removing the tension through a variety of behaviors. The behaviors are a combination of heredity and learned adaptations to the environment whether it be *aggression* (attacking the obstacle causing the frustration or directing hostility toward some other thing or person); *withdrawal* (removing the thought from his/her conscious mind, retreating into a make-believe world, or regressing to earlier behavior in infancy to cope with the situation); or *compromising* (seeking an alternate goal for the present time, blaming others for his/her true thoughts, giving false reasons for his/her behavior, seeking to undo his/her wrongs). These behaviors may occur independently of each other or in combination, depending upon the circumstances. In addition, these behaviors occur when the child's rights are challenged, but with time, he/she will see several alternatives to resolving conflicts and will seek more socially appropriate behaviors.

Behavior tends to shift cylically from a stage of balance to one of imbalance. Outgoing, adventurous, and energetic ages alternate with ages in which children are less outgoing, keep more to themselves, and have less energy and daring. Each child has his/her own individual rate of development, and behavior changes tend to slow down with age. From the ages of 2 through 6 1/2 years, big changes are noticeable every six months; from age 7 on, about every year. A conscious awareness of these types of behaviors in children can help adults in dealing with them and, thereby, promote patience and understanding.

Areas of Development

Needs, drives, and behaviors are an outgrowth of and a vital part of four types of growth in children: **physical, mental, emotional**, and **social**. Child-development theorists study each of these as separate entities but also see that they are interrelated. Children pass through numerous stages as they grow and develop, but there are no distinct lines between the stages. Each child has an individual rate of growth in the environment so he/she is different and yet similar in his/her development.

Physical Growth

A child's body is the basis for what he/she does. Physical growth includes weight, height, skin and muscle tone, skeletal development, coordination, and perception (the development of the sensory modes of vision, hearing, touch, smell, and taste).

Gross motor development is defined as the development of the large parts of the body. Examples of gross motor skills are:

- rolling over
- sitting
- crawling
- walking
- running
- throwing
- skipping
- jumping
- dancing

The child learns to control body movements as he/she becomes aware of what his/her body can do, e.g., touch an object. Later, he/she sees the body image in a mirror or picture and identifies himself/herself. Then he/she learns to identify body parts when they are named as well as to point out these body parts on other persons. Finally, he/she sees how the coordination of balance and muscle control relate to the parts of the body.

As the child develops gross motor skills, he/she experiments with **fine motor skill** or coordination of the small muscles. Examples of fine motor skills are:

- grasping and releasing a small object
- balancing the body
- moving with rhythm
- developing eye, hand, and foot dominance
- moving objects in a direction (above, below, behind, before, beside)
- identifying objects by touch

These fine motor skills become increasingly complex. For example, a five-year-old may easily work with a large needle, yarn, and burlap in stitching. An eight-year-old may be able to do embroidery with fine needles and floss.

A third area of physical growth is **perceptual-motor skills** which include auditory (hearing) and visual (seeing) skills (Stoodt, 1981).

Examples of auditory skills are:

- hearing and distinguishing between different sounds
- speaking in a meaningful way
- understanding spoken language
- recalling sounds
- recalling oral activities in sequence

Some symptoms of poor hearing that will inhibit the development of auditory skills are:

- inattentiveness
- poor articulation
- frequent requests to repeat information
- tilting of the head when listening
- complaints of noises in the ears
- frequent ear drainage
- frequent colds

Examples of visual skills are:

- moving the eyes to focus on different shapes and forms
- separating objects in the foreground and background of a picture or scene
- recalling information from previous visual experiences
- developing eye-hand movement
- solving problems by viewing information

Some common symptoms of poor visual skills are:

- inability to see the chalkboard
- tilting of the head during reading
- frequent rubbing of the eyes
- frequent blinking and/or squinting
- closing or covering one eye when reading
- headaches
- fatigue
- holding written materials close to or far away from the eyes
- frequent skipping of lines or words when reading

Children who have problems in these areas of physical development have inadequacies that may be due to congenital defects, injuries, illness, emotional pressures, and environmental deprivation. The teacher and aide team together can plan appropriate activities for students who experience learning difficulties affected by these physical skills.

Mental Growth

Mental growth encompasses intellectual development. Intelligence is the ability to learn new ideas and skills in a variety of ways, to solve problems, and to react to varied situations appropriately. Human intelligence progresses through a developmental sequence. Intellectual development can be seen by observing a child's behavior and seeing the development unfold. It must be recognized that a child does not think like an adult.

The child during the K-3 years passes through two stages. Of course, children learn at different rates, so the following stages and ranges should be viewed flexibly.

Stage 1 (Ages 2-7)

1. Exhibits the tendency to focus on one thing at a time. Is unable to keep the "whole" in mind while considering its parts, e.g., cannot comprehend the whole sentence if he/she stops to sound out a word in a sentence.
2. Is perception bound and is fooled by appearance, e.g., a cupcake cut in half seems to be less cake than an uncut cupcake.
3. Is egocentric — everything is seen from the perspective of the child.
4. Develops language.
5. Gives inanimate objects lifelike characteristics and feelings and does not distinguish between real and make-believe.
6. Understands time in the present, but little beyond that.
7. Understands space which is broadened to include house and neighborhood.
8. May not be able to:
   - organize things in order according to size — largest to smallest
   - match like things together
   - categorize items by a given characteristic, e.g., shape, size, color
   - add and subtract concrete items

Stage 2 (Ages 8-10)

1. Is able to focus on the "whole" as well as its parts.
2. Develops the ability to:
   a. organize items according to size or other characteristic
   b. reverse processes and operations, e.g.,
      2 + 2 = 4
      4 - 2 = 2
   c. categorize items by a given characteristic
   d. add, subtract, multiply, and divide when dealing with concrete materials or objects.
3. Is no longer bound by perception.

4. Moves away from egocentrism; develops the ability to take another person's point-of-view.
5. Expands language in direct relation to personal experience.
6. Distinguishes real from make-believe.
7. Understands time—develops concept of weeks, months, and years, as well as past and future.
8. Understands space — town, state, nation.

Children use the five senses (seeing, hearing, touching, tasting, and smelling) to respond to and learn from the environment. Information from the senses must connect with images in the brain for that information to be transformed, reduced, elaborated, stored, recovered, and used as needed. When these connections are made, a child can perceive, use imagery and memory, solve problems, and deal with various types of thinking processes. It is for this reason that activities for the young child must be based on the use of concrete materials, e.g., matching sets of blocks with a given number.

Environmental experiences serve a strong role in intellectual development. Children who come from home situations where parents have talked with them and developed oral language; who have had an opportunity to explore freely the environment by interacting with objects and people; who have satisfied their curiosity by play activities, the asking of questions, and the completion of tasks, have a head start in competence and overall intellectual ability. The curriculum must embody activities such as these for children who have not had comparable cultural experiences. All K-3 children, regardless of their background, need a classroom environment rich in oral language, good literature, concrete materials that lend themselves to exploration, creativity, and discovery, and teacher-aide teams skilled in facilitating interaction between adults and children in the manipulation of materials. It is important that young children move from concrete experiences to more abstract levels of thinking.

Effective mental development for young children further depends upon an awareness of how individuals learn and appropriate ways to facilitate this learning. Learning is the result of the individual's interaction with the environment. It involves the acquisition of concepts and skills. Concepts are the building blocks that enable thinking to occur. They range from the simple and concrete (such as **dog** and **train**) to the complex and abstract (such as **democracy** and **freedom**). Concepts are learned through experiences in which children are involved and by teacher and aide questions that prompt the children to compare and contrast the new situations with their previous ones. The language of children is embedded in their thought processes. Opportunities for experimenting with thoughts and developing a rich language are essential in this type of learning environment.

Some basic principles that facilitate learning and concept development are described below (Stoodt, 1981).

1. **Begin instruction at an appropriate level for the learner.**
   Concrete experiences are suitable for the young child's cognitive development, whereas abstract concepts are more suitable for ages 12 years and older. New learning should also build upon previously known knowledge. Books and materials should match with the student's experiences.
2. **Provide manipulatives to teach concepts and skills.**
   Activities in the classroom should include objects, materials, and experiences that will provide concrete images. For example, when studying about a train the children need to play with a model, see pictures or films of a train, and, if possible, take a field trip to see and/or ride a train.
3. **Help the child learn to organize information through categorization.**
   The child is able to see similarities and differences in materials, objects, and ideas by relating the new content to previous knowledge. Many experiences can be provided to help children see the unique features of items such as size, shape, color, texture, and uses, e.g., a ball and block.

4. **Help the child to focus full attention on the learning task.**
   The child needs to see that by concentrating on the content being learned rather than talking with someone or looking at distractions, he/she can remember the information. Looking at visual aids such as charts, pictures, and diagrams helps the child see the important parts of the content.
5. **Set clear expectations for the learner.**
   Children should know what is expected of them in a given task, have appropriate explanations and examples, and have questions to be answered in reading, listening to or viewing information. For example, directions in a learning center should be brief, but specific.
6. **Provide opportunities for practice.**
   Repetition of learnings provides children with a sense of security and also an understanding of the skill or concept. Practice is not repetition of the same idea or thing, but the use of the skill in a variety of ways. Practice should occur on the same day the idea is initially taught and should be reviewed the next day and at frequent intervals over a period of several weeks. This schedule of practice maintains and reinforces learned skills.
7. **Provide opportunities for transfer of learnings.**
   Children need opportunities to use the new language in a new situation. For example, after learning a particular sight word, the child should locate and read the word in sentences, paragraphs, and stories in easy reading material. Constant reminders of previous learning by the teacher and aide can help the children automatically transfer the concept or skill.

These seven principles can be used by the teacher and aide team to facilitate effective learning and mental development of young children.

Emotional Growth

A child's emotional growth depends upon age, individuality, and environment. The roots of emotional growth rest in the child's **self**, which means one's own person, one's own nature or character, and one's own individuality. There are several indicators of an emotionally healthy child. They are:

- positive interactions with parents and other children
- willingness to explore, discover, enjoy, and create (asking questions, getting answers, finding answers for oneself)
- a feeling of success through encouragement and approval
- a sense of respect for oneself and others
- a sense of self-worth (being listened to and valued as an important person), feeling needed, making a contribution, being able to help
- ability to achieve a balance in receiving the attention and affection of other people and in giving the same to others
- the development of independence and decision-making ability
- the ability to cope with feelings (frustration, anger, fear) and dealing with a sense of helplessness
- an enjoyment in being with other people (making adjustments, settling disputes, reaching compromises)
- a sense of right and wrong.

The child's emotional development is greatly influenced by the family who may show affection, responsiveness, friendliness, warmth, protection, and a wholesome emotional climate or it can show a stern, cold, demanding, indifferent atmosphere. Children expect from others what they have learned to expect from their families. The school continues the child's emotional development. If families have not shown affection, the school must provide additional nurturance and care. The teacher and the aide directly affect the child's sense of self and emotions. Classroom activities must be planned to foster opportunities to learn in a warm, encouraging, patient environment where children can explore, create, take risks, and experience success.

Social Growth

Social growth is directly related to emotional growth because it entails the extension of the self and contact with other people. A child's relationship with parents, brothers and sisters, and friends provide a pattern for operating with adults in the school and with peers. If the first relationships are comfortable, it is easier to establish new ones. A child who is secure in sense of self finds it easier to make friends and meet strangers as environments broaden.

Some specific aspects to be considered in social growth and some possible indicators of each are as follows:

1. **Dealing with one's feelings in interactions with others.**
   - knowing what each feeling means (love, hate, fear)
   - finding appropriate outlets for feelings; channeling frustrations into other productive activities, e.g., blocks, drama, working with clay, creative drama
2. **Building relationships with others.**
   - liking and being liked by others
   - developing friendships
   - sharing interests and viewpoints
   - helping others to feel successful and worthwhile; showing empathy and sympathy
3. **Responding to others.**
   - asking and answering questions
   - using body language (facial expressions, gestures with arms, hands, and head)
   - listening actively and responsively to gain ideas from others
4. **Developing a sense of "give and take."**
   - being willing to compromise
   - being aware that one's ideas are not always accepted by others
   - becoming responsible for solving one's own problems
5. **Seeing the rights of others.**
   - realizing that each person has a right to privacy as well as to attention by adults and peers
   - sensing that each person's rights have corresponding obligations
6. **Coping with peer pressure.**
   - standing up for one's beliefs
   - learning when to say "no"

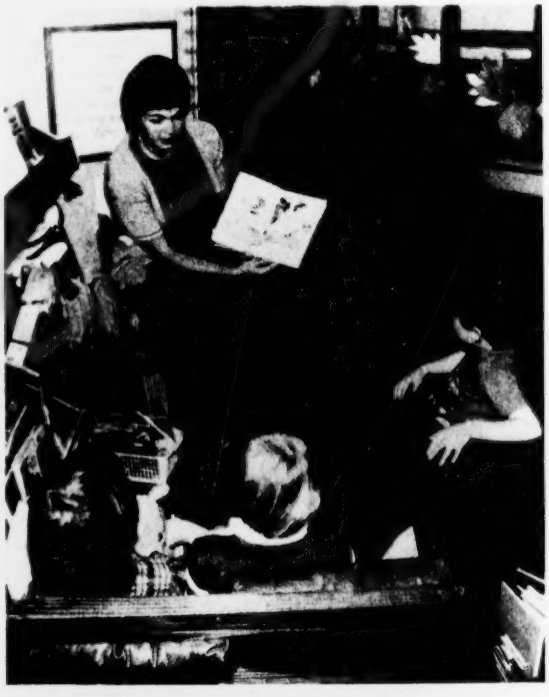
In conjunction with the above social aspects, there are obvious social abilities manifested in the well adjusted child. They are:

- leading and following peers
- expressing affection as well as hostility to peers
- sharing with peers
- showing pride in one's accomplishments
- emulating adult role models and behaviors

These abilities are necessary for a young child to grow, to learn, and to interact in a school classroom setting. The better the role model set by the adults in the environment, the better the child can follow the model and can modify behavior to fit the given situation. Thus, both the social and emotional growth of the child is enhanced.

Summary

Even though the children of the '80's face a constantly changing world, educators must remember that the schools these students attend should provide a stable learning environment to nurture growth and development. Children develop slowly. They need time for maturation in motor coordination, conceptual reasoning and personality, and time for intellecutal development. Efforts to speed up development in these areas sometimes produce detrimental effects. The adults who work with these children each day must accept them as unique individuals and provide appropriate instruction. The product of such an inviting environment and an instructional program are children who can meet daily problems, use appropriate thinking processes, and make decisions to cope with an ever-changing world.



14 Aide-ing in the Classroom

Communicating and Learning

- Foundation for Literacy
- Using and Developing Language in School
- The Source for Language Development
- The Teacher Aide Role
- Linking Spoken and Written Language
- Function and Form
- Functional, Meaningful Experiences
- Asking Questions of Young Children
- Conferencing
- Language Experience
- Activities for Learning to Communicate
  - Finger Plays
  - Choral Speaking
  - Pattern Writing
  - Puppets

After achieving and understanding the developmental characteristics of the young child and the implications for learning that naturally follow, the next task is to become familiar with what is to be taught—the curriculum. The area of communication skills is unique in the curriculum since it has no content area of its own and must rely on the other curriculum areas for developing its skills and processes. Reading, writing, speaking, listening, and viewing develop simultaneously and are dependent upon the learner's direct encounter and interaction with concrete materials and experiences in science, math, social studies, the arts, and the affairs of daily living. As the child responds to these direct experiences, communication skills develop. Children learn to:

- listen and respond with understanding
- express ideas, concepts, and events orally
- read with understanding
- express ideas, concepts, and events in many forms of media (and print)
- use and interpret non-verbal communication
- think creatively

Translated into daily classroom practice, the teacher and aide work to assist children in developing, through listening, speaking, reading, writing, and viewing, the following communication skills goals:

- communicate basic needs
- communicate to give directions
- communicate in order to understand self, others, and the surrounding world
- communicate in order to gain information
- communicate in order to solve problems
- communicate in order to enhance imagination and enjoyment
- communicate in order to establish and maintain relationships

The Foundation for Literacy

Young children develop language by talking in their everyday life. They acquire the ability to use words and phrases because of a desire and need to talk about very real, personal experiences. As children grow, they are not only surrounded by oral language, but written language is also abundantly present in their lives. Children see words on signs and packages, on TV, and in magazines. Parents should frequently read and write in the presence of their children and most importantly, read to them consistently. Through all of this, oral language is developed, and children slowly gain an understanding of written communication. Some words begin to take on special meaning. It is common for children to begin to recognize their special words such as STOP, CHEERIOS, and HARDEE's before they start school.

Using and Developing Language in School

Further language development in school should take advantage of each child's oral language base. Through continued emphasis on natural language growth, the teacher and aide can help the child begin to use language more effectively. The entire learning environment should be designed not only to stimulate the child's natural curiosity but also to encourage talk with other children, the teacher, and aide.

The Source for Language Development

Total language development revolves around children's exploration in a stimulating environment. The greater part of each school day is spent with children working with manipulative materials. There are objects and materials to measure, count, weigh, and balance; plants and animals to care for; natural objects from the environment to sort, compare, and analyze; and materials such as paints, crayons, clay, and wood to make new creations.

Every encounter with the materials can be used as an opportunity for language development. Talk is seen as legitimate: talk to oneself, talk to other children and talk to the teacher, aide, or other adults. Excursions and field trips also provide opportunities for rich language development. Experiences are reconstructed through talking about it, painting it, dictating about it, constructing a model or being read to about it.

The Teacher Aide Role

With a sensitive teacher aide talking about, paraphrasing, and extending thoughts and ideas at appropriate times during these first-hand experiences, the child's language will be nurtured. Once the teacher aide truly appreciates the fact that language development actually occurs while the child is actively involved in a direct experience, countless opportunities are found where this can happen throughout the school day.

Halliday's functions of language can be a useful guide for checking to see that there are a variety of opportunities for different kinds of talk. (From M.A.K. Halliday. **Learning How to Mean.** London: Howard Arnold, Ltd., 1975.) Of course as children use language in different ways to communicate, they involve each other as listeners as well as speakers.

FUNCTIONS OF ORAL LANGUAGE	EXAMPLES
Instrumental Language (Communicating basic needs, gaining information, and solving problems.)	"I'm thirsty; I need a drink of water." (Healthful Living) "I'm starting over because I messed up my painting. Please give me some yellow paint." (Art) "I'd like a book about ghosts." (Media)
Regulatory Language (Communicating basic needs and giving directions.)	"You put your truck over there and put a load on it and then bring it back to the warehouse." (Social Studies)
Interactional Language (Language for maintaining and establishing relationships with others.)	"Will you play a song with me?" (Music) "Let me help you find the book about Mars." (Science, Comm. Skills) "Joe, will you read over my story with me, please?" (Comm. Skills)
Personal Language (Communicating basic needs, understanding self, others, and the surrounding world, and solving problems.)	"We went to my cousin's house last night." (Comm. Skills—Journal Entry) "That was a scary story." (Comm. Skills—Literature) "I can finally ride my two-wheeler!" (Comm. Skills—Oral Language)
Heuristic Language (Language for finding things out, for exploring the environment, understanding self, others, and surrounding world, gaining information and solving problems.)	"Do you think the butterfly's wings are inside the caterpillar?" (Science) "I wonder if this will float." (Science) "Where does the moon go at night?" (Science) "Is the oak tree as tall as the school?" (Math)
Imaginative Language (Language for imaginative purposes; language as a means of creating a world of one's own.)	"I'm the mommy. Come home now." (Social Studies) Invent new words for a poem. (Comm. Skills) "Once upon a time . . ." (Comm. Skills—Drama)
Informational Language (Language for conveying information for communicating something, and for formulating propositions about the world, for informing others, and for solving problems.)	"Blue and yellow make green." (Art) "We had a caterpillar, then it spun a cocoon. It slept a while, then it opened into a beautiful butterfly." (Science) "Not all new-born baby animals have their eyes closed." (Science) "Electricity made the bell ring." (Science) "The nails are heavier than the chips." (Math)

Using knowledge of child development, resource materials, and working with the same children day after day, the teacher aide is able to accept and deepen children's interests, record their thoughts and ideas, and help them to share their discoveries with others. Thus the classroom and its extensions are where language develops—where experience is used to extend language and where language is used to interpret experiences.

Linking Spoken and Written Language

How do we move from this meaningful use of oral language to the understanding of and use of the printed word? This happens when the child is surrounded by the printed word. The child begins to recognize some words as they are frequently used, heard, and seen. Language is very complex and varied. Since each child is different, each developing at his or her own pace and own way, a rigid plan for beginning reading and writing is inconsistent with the nature of language and the nature of children. Our main concern is to help children toward literacy by building on the child's individuality.

Recording a child's thoughts or discoveries and binding these into booklets is one way to promote the child's understanding of the printed word. Repeated readings of favorite stories also causes the familiarity with written language, especially if the child follows along. Songs, nursery rhymes, and poems on charts are other means to expose children to written language in ways that make sense to them.

Function Over Form

From the beginning, the instructional aide invites the child to write and to join in reading until gradually the child takes more and more control of the reading and writing processes.

The skilled teacher aide uses many techniques to help children gain control of their language. The aide keeps in mind that learning occurs from whole to part and that sense of form and structure develops from functional, meaningful experiences; that sounds, letters, words, and spellings are learned through keeping language whole and in context.

Functional, Meaningful Experiences

The classroom and school must be environments rich in functional use of written language. There must be an abundance of written language that children will need and want to read. There must be many opportunities to write or dictate for others to write. Real reasons to write and read notes, messages, directions, charts, posters, booklets, lists, invitations, labels, and books help children to see the practical value of learning to read and write. Sensitive use of the many functions of communication helps children sense that reading and writing facilitate what they want to accomplish. The focus should be on activities that encourage children to use langauge in a variety of ways rather than on studying it in isolation. Literacy development, therefore, must be integrated with the social studies, science, math, arts, and other concerns of the classroom. Isolated, it becomes non-language, non-functional, and meaningless. In context, language development is a positive and successful experience for children.

Again, Halliday's seven functions make a useful guide for setting up meaningful situations to learn to read and write. Each experience listed can be considered as an opportunity for both reading and writing.

FUNCTIONS OF WRITTEN LANGUAGE	EXPERIENCES AND ACTIVITIES IN CONTENT AREAS
Instrumental (I want)	Sign-ups for activities or interest centers Wish lists Planning lists Play stores, travel agents, etc. Order for supplies: things I need Things I plan to do
Regulatory (Do as I tell you)	Signs Directions Rules for care of class pets, plants, material Rules for a game Procedures
Interactional (You and I)	Notes from the teacher for children on class message board, e.g., Mary, remember speech class at 9:30 am Greeting card center Class Post Office Pen pals Games involving reading Joke and riddle books (Reading to the children and by the children and dictated or written by the children.) Interviews
Personal (Here I come)	Books about self and families Journals Diaries Field trip logs Autobiographies
Heuristic (Tell me why)	Question charts Single-concept books Science experiment logs Instructions to make things Recipes
Imaginative (Let's pretend)	Fairy tales Modern fiction Plays, skits Read-along books and records Comic strips Child-authored stories Poetry, art, music, and drama
Informational (Something to tell you)	Class message boards, e.g., Five puppies for sale Bulletin boards Notes to children paralleling school messages to parents Resource books dictated or written by children and commercially produced Classroom newspapers Weather board Community newspaper, TV guide Contributions to community newspaper Context textbooks Charts and graphs developed from concrete experiences

Asking Questions of Young Children

Adults ask questions frequently in teaching situations. At least one study has shown that teachers spend 70 to 80 percent of their time asking questions. (Norris M. Sanders, **Classroom Questions: What Kinds?** New York: Harper and Row Publishers, 1966, p. ix.) Questions are used for controlling behavior, for giving directions, and initiating an activity. Probably the most often used questions are used for evaluating or finding out what a child knows or does not know. All these types of questions are useful at some point. However, the most important questions and the ones least commonly asked are the ones that cause serious critical thinking to occur. Consider these questions and answers:

Who was our first president? George Washington
How many sides on a triangle? Three
What is the capital of North Carolina? Raleigh
Can you tell me how many quarts are in a gallon? No
Do plants need food to live? Yes

The above questions are typical and frequently asked of children. It isn't that these inquiries are inappropriate or useless, but rather that one should recognize the type of thinking needed to give an answer. The child has only to say "yes" or "no" or recall factual information. Recalling something from memory, if you are good at it, is a wonderful feeling when playing Trivial Pursuit or when test papers are returned. However, recall and yes or no questions do little to extend young minds to high-level thinking required to:

- solve problems
- hypothesize
- predict
- evaluate
- judge
- defend
- justify
- infer

Now, consider a question which challenges the young mind to freely choose among many alternatives:

How do you think you could build a boat strong enough to float twenty counting bears?

The child may be involved in many types of intellectual activities:

- a search through all the available material
- consideration of a number of questions, e.g., "Will a clay boat work better than a plastic lid, tin foil, paper plate?"
- prediction of what could happen with various materials
- formation of a hypothesis
- creation of the boat
- test of boat and materials
- observation or modification of boat
- conclusions drawn
- findings recorded

"How" or "what do you think" questions have many advantages. Let's mention one or two. First, they are safe — they protect the child from failure. What one thinks has no right or wrong. It is simply an expression of the thought processes used in probing a problem. Second, "what do you think" questions are open-ended. One never knows where the problem-solving trail may lead; what new and interesting questions may arise. For example: "I've made a boat that will hold twenty counting bears." "I wonder if I can find a way to move the boat in the water without touching it with my hands." Ah, a new direction, another adventure for the growing intellect.

To consider one more advantage, think about the opportunity the "how" or "what do you think" question provides the adult to learn more about the child's thinking and learning. Keen observation or verbal interaction with the learner at work will reveal abundant clues needed by the adult to facilitate higher levels of critical thinking.

What response do you think you would get from children with the following questions?

> How many long unit blocks do you think it would take to equal the length of the classroom? Guess first. What do you think we would have to do to find out?
> What do you think it would be like to live in a cloud?
> What do you think you would do if you were only one inch tall?

How many bottle caps do you think it would take to cover your book? Guess. How can you find out?

If you were Santa Claus for one Christmas Eve, what would you do when you stopped at your own house?

How often is it said of children that they just don't think. Perhaps it is because enough invitations to think have not been issued. The greatest tool an adult has to affect learning is the art of asking questions and allowing children time for the happy pursuit thereof.

"Sometimes they are on the brink.
One more question will help them think."

Conferencing

An ideal way to individualize the teaching-learning relationship is through conferencing—talking between an adult and a child or small group of children about work. The key principle of conferencing is that the student does most of the talking as a result of your asking questions to draw forth ideas and to foster thinking. The student then has the opportunity to clarify and evaluate ideas, to get feedback, and to make improvements in the work as it progresses. Leave the pencil in the student's hands. Thus he or she retains control or responsibility for his or her own work.

A conference can last from a few seconds to several minutes, depending on the child's needs. It can be diagnostic (you see where the child is, what the problems are, and determine what help is needed) or instructional (you guide the concept or skill development through demonstration within the context of the child's work). Many conferences can be both diagnostic and instructional.

Some suggestions for conducting conferences are described below.

Create a comfortable environment. Sit next to the child, as close to equal height as possible so eye contact can be maintained and the work can be viewed when he/she offers to show it to you. Show genuine interest in the child and the work by asking a lead question, e.g., "How's it going, Billy?" or "How did you do this?"

Encourage the child to initiate questions and comments. It may take a while for the student to learn to do this, but the kinds of questions asked will encourage talking and expression of thoughts, e.g., "Can you think of a different way to do this? How?" "What is your favorite part?" "Is there a part you are not happy with? Why?" As the year progresses, the child will learn to talk more because he/she will find that the information shared with you will encourage additional talk.

Concentrate on no more than one or two features of the child's work. Make a statement about it, e.g., "I see you know . . ." Follow with a question that will extend the information, e.g., "How did you know that?" Give the child as much time as needed for giving responses. If the work has major problems, choose one skill that can be handled and teach it within the context of the work. Trying to teach several skills at the same conference will only lead to confusion.

Show the child a solution to a problem rather than just telling them. Visual aids, and especially manipulatives, are good to use. If you need to demonstrate a skill that requires paper and pencil, do it on a separate sheet of paper. Have the student make the needed corrections on the paper; it should be **the child's** work.

Make conferences a combination of experimentation, discovery, and fun. Avoid telling the child what to do. Asking good questions, e.g., "What do you think you could do to make this better?" or "What do you want to show (or say)?" will encourage experimentation and discovery of a way that works for the student. If the work has major problems, but the child thinks it is good, ask, "Why do you think it is good?" Listen to the reason; it may change your view of the quality of the work. Add humor when possible; laughter makes work fun.

Make sure the child has clear directions or has made a decision on what to do next before concluding the conference. End on a positive note, e.g., "I'm happy you've found a way to . . ." or "That's interesting. Why don't you write it just the way you told it to me?"

Language Experience

The language experience approach to learning begins with the children, for they bring to school everything that is necessary to begin the use of this approach. It can become the true hub of the classroom and promote valuable learning experiences.

In using the language experience approach, begin with the children's "real" experiences. These experiences may have occurred at home but many should be a part of the school day. Listen to students. Encourage them to extend personal experiences into other areas, e.g., art, music, math, dramatization.

As verbal language expands, encourage children to dictate stories about their experiences to you as you write them in their own storybooks. (At this point, we are not concerned with the process of reading but with the concept of language and how it works: What I think about I can say; what I say can be written; what is written can be read.)

Gradually, the children can be encouraged to read their stories back to you and to other children. You may need to read aloud with some children several times before they read their stories alone. Some may also begin writing their own stories below your writing.

At this point, the teacher and aide can use the children's own stories to begin working with any skills that the children need. (During the writing of a story about balloons is the time to work on plurals). The adults' handwriting, at this stage, needs to provide a model for children. Learning the proper formation of letters in a meaningful context is far superior to having children practice row after row of A's.

This is the time to begin a personal dictionary or word card file for each child. If the story is written one day, ask the child to read it again to you the next day. Include only those words that the child knows in personal dictionaries or files. You may want to begin by asking the child to choose only one key word from a story and become involved with several activities with that word. Gradually expand the number of words drawn from the story. At this point, the teacher and aide may want to make their own story books using children's vocabulary words. This provides practice for children in using words in a different context.

The next stage begins when the children are able to write their own stories, omitting the dictation process. They should now have access to the following:

a. personal dictionaries or card files of words that they know
b. a class list of commonly used words that has evolved from class experiences
c. a pictionary or simple dictionary
d. a stack of blank cards, kept in the language center (These are used for words needed but cannot be located.)

Vocabulary now develops rapidly, and children have entered the reading process as a natural and beautiful extension of their own experiences.

During this entire process of growing into reading, children should always have a wide assortment of books available to them—picture books, story books, basal readers, poetry books, etc. They should also be exposed to written language in its natural form in all areas of the classroom. Some suggestions for doing this are:

1. labeling objects in the classroom with labels on them.
2. providing a special notice board for the teacher to leave notes for the class, e.g., "Helpers for the Day;" "I'd like to see Sally, Tim, and Joe in the Math Center at 9:30;" or "We need milk cartons."
3. providing a special notice board for children to leave notes for the class, e.g., "Jane, Bill, and Mark are having a puppet show at 10:30. Everyone is invited."
4. placing informal notices which are left in center areas, e.g., "Bobby and I are not through with this. Please do not disturb!"

It is essential that the teacher and aide provide a multitude of experiences for children, for it is through involvement in new experiences that children acquire new vocabulary words, new meanings, new ideas, and new means of expression. Thus the entire classroom becomes a language center. The activities that take place in the art center, the science center, in cooking, stitchery, sand and water play, and in the natural environment provide new experiences that flow naturally into language development and into the total development of the children as they live and learn.

Activities for Learning to Communicate

While much of the children's language development takes place spontaneously within the context of working with real materials, people, and situations in the classrooom, there is also a need for patterned and organized language activities during the school day. Reading to children from a variety of literary forms should be a part of every school day. Children also need to be encouraged to learn some of the traditional rhymes and rhythms of the culture. Among the activities that may be used to help children develop a sensitivity to language pattern and to new vocabulary are finger plays, choral speaking, pattern writing, and puppets.

Finger plays allow children to become physically involved with poetry. Both children and instructional aide recite the poem together to illustrate with hand motions.

Finger Plays*

Five Little Ducks

Five little ducks	[Hold up five fingers.]
Swimming in the lake.	[Make swimming motions.]
The first one said,	
"Watch the waves I make."	[Make motions of waves.]
The second duck said,	
"Swimming is such fun."	
The third duck said,	
"I'd rather sit in the sun."	
The fourth duck said,	
"Let's swim away."	
The fifth duck said,	
"Oh, let's stay."	
Then along came a motor boat	
With a POP, POP, POP!	[Clap hands three times.]
And five little ducks	
Swam away from the spot.	

Ocean Shell

I found a great big shell one day,	[Hold hands cupped
Upon the ocean floor.	as if holding large shell.]
I held it close up to my ear.	[Raise hands to ear.]
I heard the ocean roar!	
I found a tiny little shell one day,	[One hand cupped as if holding little shell.]
Upon the ocean sand.	
The waves had worn it nice and smooth.	[Pretend to roll shell between palms
It felt nice in my hand.	of both hands.]

*See Appendix for more finger plays

Choral Speaking*

Choral speaking helps to create a pleasant classroom atmosphere. Many values develop from choral speaking: enjoyment of poetry, enriched imaginations, personality development, increased vocabulary, improved voice quality, enunciation, and pronunciation.

Enjoyment of poetry is increased through choral speaking when the class shares sensory pictures, moods, and feelings of the poems. Procedures vary for teaching different poems.

However, below are some general suggestions that may be helpful.

1. Read the poem to the class several times. As you read, the class may concentrate on the mood, mental pictures, meaning, and music of the words. Poetry should be read by children only after it is read to them.
2. Talk about the sensory impressions—pictures, sounds, smells, and feelings—of the poem.
3. Use the poem in various ways for choral speaking. Children may suggest ways a poem can be interpreted—by solo, groups, girls' parts, or boys' parts.

The following poems are full of sensory impressions that help to stimulate choral speaking. After reading each poem to the class several times, write it on a chart. Use the poems throughout the year as children develop ability in choral speaking.

Autumn Mood

A golden leaf is falling to the ground.
Hush! Hush!
With just the faintest whisper of a sound.
Brush! Brush!
Leaves
And leaves
Are swirling in a shower.
Still! Still!
A golden rain is falling on the hill.

Louise Abney

Who Has Seen the Wind?

Who has seen the wind?
Neither I nor you:
But when the leaves hang trembling
The wind is passing thro'.

Who has seen the wind?
Neither you nor I:
But when the trees bow down their heads
The wind is passing by.

Christina Rosetti

The Ice-Cream Man.

When summer's in the city,
  And brick's a blaze of heat,
The Ice-Cream Man with his little cart
  Goes trundling down the street.

Beneath his round umbrella,
  Oh, what a joyful sight,
To see him fill the cones with mounds
  Of cooling brown or white.

Vanilla, chocolate, strawberry,
  Or chilly things to drink
From bottles full of frost-fizz,
  Green, orange, white, or pink.

Rachel Field

Strawberries

Ripe, ripe Strawberries!
  Who'll buy Strawberries?
Buy my Strawberries, red and sweet?
Then your child can have a treat,
And I'll trudge home and rest my feet,
And cry no more in the dusty street,
  Ripe, ripe Strawberries!
  Who'll buy Strawberries!

Dorothy Hughes

*See Appendix for more choral speaking ideas

Pattern Writing

Just as children need oral language experiences with rhythms and rhymes, they also need opportunities to use these patterns with writing activities. Poems and books that allow the children to create their own writings by using the given structures and adding personal experiences and wording are referred to as pattern poems and books.

Examples — Brown bear, brown bear, what do you see?
I see a red bird looking at me.

becomes:

Red bird, red bird, what do you see?
I see a spotted dog looking at me.

from **Brown Bear, Brown Bear**
by Bill Martin

Mary had a little lamb;
His fleece was white as snow.

becomes:

Stevie had a chirpy bird;
His feathers were blue and white.

See appendix for list of pattern books.

Puppets

Puppets provide children with an extension of themselves. With puppets, children can express their own real and imaginary experiences through a voice of their own creation. This extended voice allows them not only to protect feelings, but it also allows them an opportunity to view those feelings as others may. Puppets can be as simple or as involved as the teacher and instructional aide choose.

Some types of puppets are described and illustrated below.

- Fist puppets — The bare hand may be used, with features painted on by magic marker or equivalent. If gloves are used, the features may be applied in any media.

- Finger puppets — These may be constructed in many ways of many things.

- Paper bag puppets — These can be constructed with any material imaginable: crayons; magic markers; all kinds of paper and glue; all kinds of fabric such as felt or wool; all kinds of sewing notions such as buttons, trimmings, yarn, and thread.

- Stick puppets — Oaktag and sticks are usually used, but even a light doll or other type puppet may be supported by a stick. The puppet may be one piece, or arms and/or legs may be attached with paper clasps and thin rods attached to the limbs to make them move. Every front-facing puppet should have a back. Every side-facing puppet should have two sides and be able to travel in either direction. The puppet may be extremely simple or complex, depending upon the ability of the puppeteer.

- Hand Puppets — The head may be made from a ball, clay, a potato or other vegetable, a toilet-soap box or other boxes, sponge, paper, cloth, papier-mache, tubing, sawdust and paste, or kitchen tools (spoon, potato masher, gourds, styrofoam, a balloon, dividers of egg cartons). Animal features may be wood, plaster, etc. The head must be appropriate in material to the character. The neck opening must be fitted to the manipulator so that he or she can move the puppet head in ready response. The material should be lightweight so the puppeteer doesn't tire. The puppet neck needs substance in the clothing that fits over it. The puppet body must fit the puppeteer's hand and the puppet head. It must be lightweight and the material must suit the character. Padding, stuffing, or wiring may be used if desired to give the body substance. A wad of tissue clutched between the two bent fingers helps.

1

2

4

3

1. Balance scale activities bring meaning to number words, concept words, and the language and concept of computational processes.
2. Paper weaving and other art activities foster creativity in the development of fine motor skills and concepts of color, size, shape and pattern.
3. Sand experiences may look like simple play, but such explorations provide oral language expansion and concept development in the areas of texture, volume, weight, motion and time.
4. Observation, exploration and experimentation with real materials provide topics for children to talk, write, and read about.

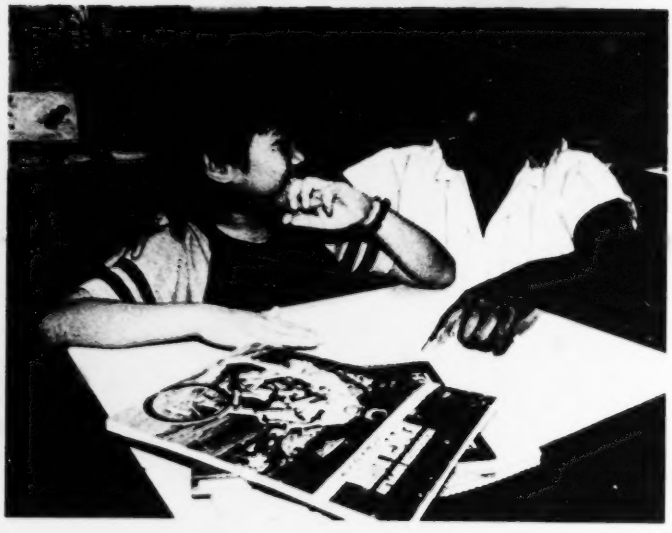
1. Displaying children's work lets the children know that their work is valued.
2. Children who experience literature on a regular basis become better readers.
3. Children must talk about their experiences to develop and improve their oral language.
4. Through drama experiences children expand their view of others and the surrounding world.

1

4

2

3



28 Aide-ing in the Classroom

Classroom Environment

- A Place for Learning
- Classroom Work Stations
- Collectibles for Work Stations
- Examples of Work Stations
- Activities With Blocks
- Housekeeping Activities Work Station

A Place for Learning

The classroom environment plays a fundamental role in the quality of learning. First, the environment must take into account the emotional and psychological needs of the children. Learning takes place most effectively in a warm, caring environment in which the children feel safe, secure, and accepted. Risk-taking is encouraged and mistakes are valued as an important part of the learning process. The child must be supported and his or her attempts honored.

Interaction between people in the classroom is the base line of an emotional environment. Many varied opportunities for children to relate to each other, as well as to adults in the classroom, determine the quality of this environment.
Children should be encouraged to talk freely about their experiences and to pose questions that lead naturally to further explorations.

In many ways, however, the physical environment also contributes to the intellectual well-being of the child. The child who is safe and comfortable and whose basic needs are met in the classroom is most productive. The classroom must be clean and colorful and provide for a variety of activities. This is most readily achieved with flexible space and moveable furniture that can be arranged for large group, small group, and individual activities depending upon the objectives for the day. The child's need for privacy must always be taken into account in planning the physical environment.

Materials are another physical aspect of the classroom. Without an abundant and varied assortment of concrete items (e.g., rock collections, science equipment, cooking supplies, artifacts from various cultures, art materials, and other supplies) the classroom is incomplete. Addition of such supplies will necessitate more storage space. To find this additional space, the teacher and aide may need to reevaluate the use of existing space and consider creative solutions for expanding their area. The addition of lofts gives the classroom more than one floor space and also allows for the nooks and crannies that children need for privacy and quiet times.

The intellectual environment of the classroom depends on the ability of the teacher and aide to make all components of the environment and program mesh. The child, the curriculum, the classroom itself, the materials, the method of teaching, the relationship of teacher and aide and the quality of implementation determine the intellectual environment. The intellectual environment is not a "place" but rather a composite of all these components.

Classroom Work Stations

Work stations can provide a quality and quantity of teaching and learning that no teacher and aide team can possibly provide alone. The classroom that is organized around a number of work stations provides:

- — concrete exploratory experiences for students in a wide variety of content areas simultaneously.
- — opportunities for decision-making.
- — opportunities for developing personal independence and responsibility for personal learning.
- — opportunities for learning to value and care for materials.
- — experiences that foster expanded thinking.
- — activities for individual interests and needs.

It is imperative that the instructional aide understand the various kinds of work stations. That is, what are the different ways that stations can be used? What different functions can they fulfill? It is also imperative that the instructional aide fully understand the teacher's teaching style. Work stations can be approached as rigidly or as freely as any individual teacher desires, since it is always the teacher who establishes the parameters for their use. Aides need to be fully aware of these parameters and assist in making the stations function appropriately.

There are several different kinds of work stations; five kinds are described below.

A. Exploratory Topical Stations set up for concrete exploration.

These stations provide for initial learning experiences and serve as initiators and motivators of further study, reading, discussion, writing on particular topics or activities. Materials for further work should be housed in or in close proximity to the station.

Examples: Batteries and Bulbs
Shapes
Machines
Poetry
Road Maps

B. Practice Stations

These areas provide practice in skills and concepts already introduced. They are equipped with close-ended materials designed for specific purposes.

Examples: Dienes Blocks
Chip Trading
Dominoes
Color Cubes
Dice Games
Unifix & Cuisienaire Rods
Geoboards
Card Games
Color Games
Matching Games
Puzzles
Language Games
Object Identification Games

C. Creating Stations

These areas are designed to foster creative activity and should involve choices and freedom for personal invention. Frequently, activities in these areas relate to or evolve from experiences in a topical area.

Examples: Art
Construction
(wood or junk material)
Blocks
Creative Drama
Music
Writing

D. Storage Stations

Generally, there is one storage area where frequently-used odds and ends are housed. Crayons, measuring devices, tape, glue, scissors, magazines, etc. can be located in a central place and save many steps and many questions.

E. Standard Stations

These are the areas that remain constant and typically are used in the same manner throughout the year.

Examples:	Reading	Bookmaking
	Listening	Math
	Publishing	Science
	Blocks, Sand, Water	Social Studies
	Cooking	Drama

Before working with students in the various stations, aides should consider the following questions:

- Do I understand the teacher's strategy for keeping up with each child's work?
- Do I understand the teacher's strategy for student's participation in the record-keeping process?
- Do I undersand the teacher's process for moving youngsters in and out of stations?
- Has the group established rules for care of materials within the area?
- Do I know the precise purpose for each station?
- Do I know how to help the students understand what each area is for and what they are to do when they work there?

The instructional aide has an important role in work stations. The aide can assist in many ways, including those described below.

A. Assist in gathering materials.

1. Personnel in the school can be excellent resources.
   — The media specialist may give or lend magazines, books, and newspapers.
   — Staff members may be approached about their hobbies, travel, collections, etc.
2. Community persons are another excellent resource.
   — Service stations can provide maps and brochures.
   — Fabric shops can provide scraps of materials, odd buttons, etc.
   — Industry can provide all kinds of scrap material and excellent resource speakers.
3. Parents are usually glad to contribute discarded items—clothes, pots and pans, furniture, styrofoam, etc.
4. Children enjoy collecting and contributing to a work station.

B. Assist in developing activities and materials.

1. Assist the children in making books. The books could be as simple as two or three sheets of paper stapled together for an individual or group-dictated or written story. The stories may be illustrated and read by the children.
2. Make and place a picture/word dictionary in each center. This dictionary will list materials that are in each area and will help children expand their vocabularies.
3. Use the newspaper for activities.
   a. Let children write all the large letters they recognize on the front page of a newspaper.
   b. Let a child choose an advertisement to read and explain its meaning.
   c. Read the local community news section to the children and discuss it.

C. Assist children in their use of work stations.

1. Familiarize yourself with the area:
   — What can be done here.
   — How each activity, game, etc., is used.
   — Where the materials are kept.
2. Assist children with their understanding of what the area contains and how it can be used. You may conduct a station walk-through to familiarize children with what can be done in the area.

3. Assist those children who need direction. Help them select a station and an activity within the station.
4. Encourage those who can work independently to do so.
5. Assist children in returning materials to their proper place by labeling containers and shelves.
6. Ask questions and make comments to extend children's thinking as they work with the materials. (See "Asking Questions of Young Children")
7. Encourage children to tell and/or help children to record their experiences with the materials. They may make comments such as the following:

   "G.P., the guinea pig, is getting heavier. He eats a lot."

   "I made a tower with the blocks. It is forty (40) centimeters high."

Collectibles for Work Stations

baby food jars
batteries
beads
beans
bird nests
boxes
buckles
buttons
candles
cans
cardboard
cardboard tubes
cards
cartons
classification items
  from cereal boxes,
  machines, gum, etc.
clay
clocks
cloth
clothespins
cocoons
containers
cord
cornhusks
costume jewelry
dress-up clothes
egg cartons
feathers
felt
flannel
flower pots
gourds
hangers
keys
kitchen utensils
jar lids
jugs
linoleum tiles
macaroni
magazines
marbles
milk cartons
men's shirts
nails
neckties
newspapers
nuts & bolts
old silverware
pictures
picture frames
pine cones
pipe cleaners
plants
plastic plates
popsicle sticks
pots and pans
ribbon
rings
road maps
rocks
rope
rugs
sand paper
saw dust
seeds
screens
simple recipes
soft drink cartons
sponges
spools
straws
string
styrofoam
throw pillows
tooth brushes
wall paper
wire
wood scraps
yarn

Examples of Work Stations

Activities with Sand

I. Materials
- A. Sand (wet and dry)
- B. Containers of various sizes and shapes
- C. Sifters
- D. Sieves
- E. Scrap bottles
- F. Measuring cups and spoons

II. Exploration
- A. Exploration of material itself.
  Focus on properties, usability, etc.

III. Concept development
- A. Sensory activities
  1. Touch (How does sand feel? Difference between wet and dry sand; difference in sand and other textures)
  2. Hearing (How does sand sound when dropping on different objects? Making musical instruments with sand; different sounds made by different colored sand)
  3. Seeing (Different colors of sand; different qualities of wet and dry sand)
- B. Math activities
  1. Concept of volume
     a. More — less
     b. More — least
     c. Same — different
     d. Full — empty
     e. Equal
  2. Concept of weight
     a. Heavy (-ier, -iest) — light (-er, -est)
     b. Equal
     c. Same — different
     d. Difference between wet and dry sand
     e. Effect of quality
  3. Concept of number and classification
     a. 1 - 10 (oneness of one, etc.)
     b. One to one correspondence (put one car on each path; one candle on each cake, etc.)
     c. Number words
     d. Number symbols
     e. Classification of items by use (containers, tools, cars, etc.)
  4. Concept of size
     a. Small (-er, -est) — large (-er, -est)
     b. Long (-er, -est) — short (-er, -est)
     c. Tall (-er, -est) — short (-er, -est)
     d. Same — different
     e. Equal
  5. Concept of shape
     a. Boundaries of shape
     b. Multiple shapes
     c. Specific shapes (circle, square, rectangle, triangle)

6. Concept of linear measure
    a. Long (-er, -est) — short (-er, -est)
    b. Same as (strip of yarn, the red block, etc.)
    c. Equal to (14 paper clips, 5 pennies, etc.)
7. Concept of time

    Minutes
    & (Time spent in area; simple timing devices to measure "how long" it takes for sand to pour through funnel A,B,C, or containers with a different number of holes; how long for wet sand to dry, etc.)
    Seconds
    &
    Hours

8. Concept of symmetry — making symmetrical designs with molds; building symmetrical highways, etc.

C. Science Activities
1. Exploration (what happens if . . .)
2. Observation (of cause - effect)
3. Recording (verbal, concrete stage of graphing)
4. Topical explorations
    a. How to make sand
    b. Rock collections
    c. Effect of heat

D. Social Studies activities
1. Sharing
2. Working cooperatively
3. Joint decision-making
4. Personal responsibility (clean up, following directions, etc.)
5. Topical explorations
    a. Community helpers (fireman, postman, milkman, etc.)
    b. City life
    c. Country life
    d. Transportation
    e. Home — family
    f. School (cafeteria workers, custodian, etc.)

E. Language development
1. Oral language
    a. Refer to all concept areas for terms such as "long-short" to incorporate
    b. Each activity offers an endless possibility of new vocabulary words for integration
    c. Verbalizing activities
    d. Retelling an event in sequence
    e. Beginning skills (initial consonant sounds, rhyming words, word endings, hearing parts of words)
    f. Directions (following and giving)
2. Written Language
    a. Labeling
    b. Dictating an account of activity
    c. Understanding that what is thought can be said; what is said can be written; what is written can be read
    d. Writing account of activity
    e. Writing stories, plays, poems related to activity

F. Art
   1. Sand designs
   2. Coloring sand
   3. Sand molding
   4. Sand modeling
   5. Reproducing sand structures through other materials (paint, crayons, blocks, stitchery, block printing, etc.)
   6. Sand candles

G. Healthful Living
   1. Traffic signs
   2. Safety rules
   3. Social interaction
   4. Develop games for community recreation

H. Topical explorations and studies. All topical studies lend themselves to the integration of math, reading, art skills. The list of topics is unending. Examples include:
   1. Making brick
   2. Cultural communities (Indian village, etc.)
   3. Timing devices (research and construct)
   4. Building a natural kiln
   5. Space (construct a launching pad; the surface of the moon, etc.)

Activities with Blocks

I. Exploring with blocks

A. Materials needed
   1. Blocks of all types (cardboard, large hollow wooden parquetry, attribute, geo, multilinks, unifix, etc.)
   2. Tinker toys
   3. Lincoln logs
   4. Small wheel toys
   5. Rubber or plastic animals and people, puppets
   6. Planks
   7. Tiles
   8. Crates, boxes, ropes, pieces of string
   9. Traffic signs
   10. Books related to building
   11. Action figures

B. Experiences
   1. Children should be allowed to "mess around" and have free play with blocks in order to discover some things for themselves, e.g., blocks are good for building, measuring, counting, and role playing; balance is necessary for building with blocks. Language can be used to tell others what has been experienced.
   2. After ample time for exploration has been provided, and the child has experienced many times the process of oral recording, other forms of recording can be initiated:
      a. Draw pictures of your block structure. (These may be kept with the child's other recordings or may be added to a class book kept in the block area.)
      b. Record the building of the structure (first, second, and third).
      c. Draw or write about the people who helped with the structure.
      d. Label the parts of the structure with small labeling cards.
      e. Dictate or write a story about what happened in your structure. (Personal books, word banks, personal dictionaries may be used.)
      f. Draw or write about the imaginary people who exist in the structure. (If the child is dictating or writing, word bank or personal dictionary words should be selected by the child.)

g. Draw your structure to scale. Write directions for someone else on "drawing to scale."
h. Make a graph showing the various block shapes used in the structure.

3. Concepts expressed in language should include: wide (er, est), narrow (er, est); thin, thick; long, short; heavy, light; straight, curved; how many, how few; big, bigger, biggest; bigger than, smaller than, taller than, shorter than; round, flat; high, low;

II. Role playing

A. Materials needed
1. Larger building blocks
2. Props
3. Children with imagination

B. Experiences
1. Build castles, houses, roads, service stations, stores, etc.
2. Role play situations that occur in that place with or without props.
   Note: Children role-play spontaneously. Guidance or suggestions should be interspersed with natural role play but should never replace it.
3. Role play with blocks frequently integrates the housekeeping area if the two areas are placed side-by-side.
   Example: Food is prepared in the housekeeping area for the workers in the fire station which has been constructed in the block area.
4. Make books with representations of the various role plays. (These books can include a table of contents, title pages, etc.) Reading skills can also be integrated from these books.
5. Use books in the media center to enhance the role play (books on barns, fire stations, etc.)

III. Scaling and mapping (spatial relationship)

A. Materials needed
1. Large blocks
2. Lincoln logs
3. A large piece of paper
4. Cars, if desired
5. Geo blocks
6. Problem cards

B. Experiences
1. Take a neighborhood visit and draw a map. Put blocks on the map to represent buildings, shopping centers, airports, railroads, etc.
2. Build a large city and a small town and compare the two. Observe the size, number, and height of the buildings, types of houses, etc. Record these comparisons.
3. Build a fort when studying the Old West and a plantation or log house when studying Colonial America. Record these building experiences.
4. Construct and solve mapping problems using the Geo block problem cards. The cards should include top, side, and oblique views of the construction. These are very appropriate for third grade.
5. Build slopes for cars. Facilitative questions can include:
   a. Which blocks make a good ramp?
   b. What is it that makes a ramp smooth or bumpy?
   c. How could you make it smooth?
   d. What is it that makes a ramp steep or not so steep?
   e. What is the steepest one you can make?
   f. Will a car go further off a steep ramp than off one that is not so steep?

g. Does it matter whether or not cars start from the same point above the floor?
h. Can you make a smooth ramp that is both wide and long?

IV. Ordering (seriation)

A. Materials needed
   1. Blocks of any size.

B. Experiences
   1. Duplicate the order of a given set (no more than 3 items at first). Gradually increase the number.
   2. Order a set (no more than 4) of items from smallest to largest.
   3. Identify items which are "first, last, between" in a specific set.
   4. Use the terms "first, next, between, and last" to identify objects which have been arranged in some order.
   5. Build a given object with blocks by following oral or printed directions.
   6. Record appropriate experiences.

V. One-to-one correspondence

A. Materials needed; blocks

B. Experiences
   1. Match blocks in two groups, e.g., long blocks to long blocks, long blocks to short blocks. (The clean-up process is great for developing classification concepts.)
   2. Use one-to-one matching to answer questions such as:
      a. "Are there enough blocks to put on top of a given number of blocks?"
      b. "Are there enough blocks to give to all the girls?"
   3. Match equivalent sets of blocks containing up to 5 blocks in each set. Example: "Can you find a set of blocks which will be just enough for this set of boys?" Gradually increase the number of blocks used.
   4. Record activities.

VI. Counting (cardinal and ordinal numeration)

A. Materials needed; blocks

B. Experiences

Note: Many of the experiences listed are best integrated with children's buildings.
   1. Count blocks to answer the question, "How many?"
   2. Have the child respond to ordinal use by identifying first, second, and third in a series of blocks.
   3. Have the children read and follow printed directions for building an airplane, a house, etc.
   4. Respond to and use the ordinal form of a number to identify the position of blocks in a series, e.g., touch the second block; what color is the fourth block?
   5. Match a set of blocks with the corresponding numerals, 1-9.
   6. Group blocks by tens to experience two-digit numbers and place values. Match the blocks with written numerals.
   7. Use blocks to express three-digit numbers. Example: 134 may be shown with one "bundle" of ten tens, three "bundles" of ten, four "ungrouped" ones and recorded thus: 100 + 30 + 4 = 134.
   8. Record these activities.

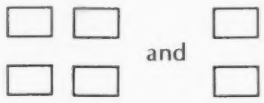
VII. Computing

A. Materials needed
   1. Small blocks

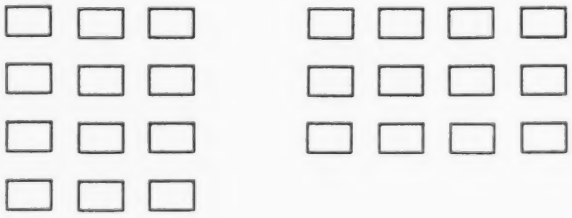
B. Experiences

Note: Again, many of the activities listed should be integrated with the child's block structures.

1. Adding and reversing
   a. Prove that changing the group of a given number of blocks (counters) does not change the original number.
      Example: 6 blocks may be



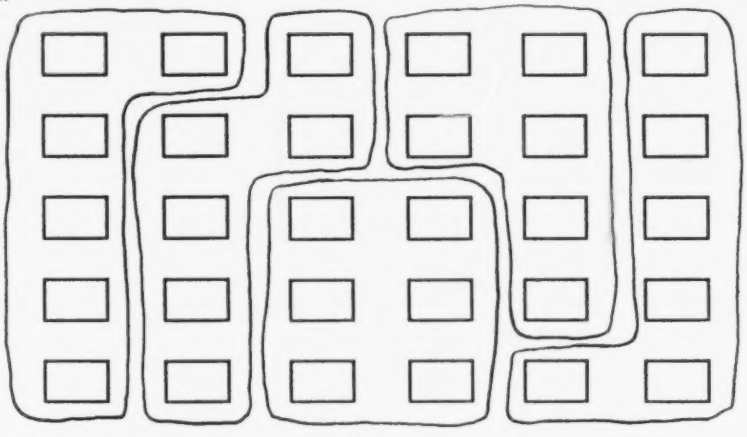
      Change them to another arrangement and the total is still 6. Continue to make combinations of whole numbers. (Remember, the child must be concrete operational for this to be appropriate.)
   b. Use blocks to demonstrate that reversing the order of addends does not change the sum.
   c. Use small blocks for initial, concrete tallying with games, graphs, etc. Group tallies in different sets, e.g., by 5's, by 3's. Use for addition and for multiplication experiences.
2. Subtracting and reversing
   a. Use blocks to provide experiences with subtraction concepts and facts.
   b. Encourage children to "create" ways of representing zero. Then add "0" into equations drawn from block activities.
   c. Use blocks to prove reversibility (check subtraction by addition).
      Example: Use 7 blocks to show 7 - 4 = 3; 3 + 4 = 7. (Again remember, the child must be concrete operational for this activity to be appropriate.
3. Multiplying
   a. Use blocks for children to experience multiplication as repeated addition, tallying, graphing, and grouping by sets of 5.
   b. Record block activities using simple equations. Example: Group all of the blocks used in your tally into sets of 4. How many sets? How many blocks? Now group the blocks into sets of 3. How many sets? How many blocks?



$3 \times 4 = 12$ $4 \times 3 = 12$

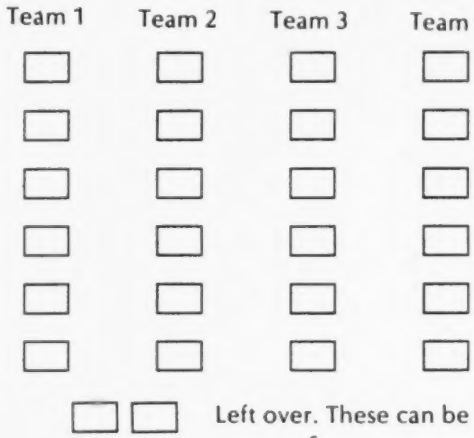
Note: Experiences with blocks should come before the writing of equations. It is much more meaningful to deal with equations in a realistic situation than to use blocks to find the answer to worksheet equations or equations given in a textbook.

4. Dividing
   a. Divide all of the blocks used in your structure into sets of 3, 4, 5, etc. Record your findings.
   b. Integrate division equations as a form of recording. Example of child's recording:
      I constructed a grocery store in the block center. Sam and Anne helped me. Our store had aisles of food, a checkout counter, and a work place in the back. Our work place had an unloading area for big trucks to unload food. Some of the trucks came from Charlotte and some came from other states. We built a ramp to make it easy for bag boys to load cars.
      We used 30 blocks in our store. We drew circles around different numbers of blocks.



      We found out that: $6 + 6 + 6 + 6 + 6 = 30$
      $30 \div 6 = 5$
      $6 \times 5 = 30$
      Note: Needless to say, this recording was done by concrete operational children, but it does demonstrate the way children can use numbers, think about numbers, and integrate number work with language if they have the opportunity to do so in a concrete, realistic situation.
5. Solving problems
   a. Use blocks to solve meaningful problems for which the mathematical solution is not known.
      Example: Given a set of 12 blocks (to represent people, clowns, ball teams), a child can determine how many teams of 4 can be arranged as well as how many teams of 3.
   b. Solve with blocks first; then keep a record that leads to the solution. Example: Given 20 cubes, a child will experiment to find how many different ways 20 can be divided into equal groups. Record after each way — 2 groups of ten; 5 groups of 4, etc.
      Example of child's recording:
      Mrs. Myers told us that we were going to play a game outside that needed 4 teams. She wanted us to figure a way for our class to be divided into 4 teams that had the same number.

First, we counted out 26 blocks. The blocks stand for our class. Second, we used different colors of paper to stand for the teams. Third, we took turns putting one block in each team. This is what we found.



Left over. These can be score keepers.

$$4\overline{)26}\quad 6,\ 24,\ 2$$

VIII. Comparing and contrasting

A. Materials needed
   1. Blocks

B. Experiences
   1. Answer questions dealing with comparisons in blocks.
      a. Which is longer—the blue block or the red one?
      b. Use other comparative pairs of words—more/more than; less/less than; soft/hard; narrow/wide; heavy/light.
      c. Tell what is the same about a triangle and a rectangle; tell what is different about them.

IX. Classifying

A. Materials needed
   1. Blocks

B. Experiences
   1. Select from a group of various shaped blocks all those having the same shape as that of a specified model. Also group by colors, right angles, arches, etc.
   2. Group "short" or "long."
   3. Group "heavy" or "light".
   4. Record these groupings.
   5. Play attribute games with blocks:
      a. Build a road like this one.
      b. Play a "one attribute change game." (This can be an individual activity or a small group activity. The first block is placed, for instance, a small red square. The next move is to place a block which is different in only one way, for instance, a large red square or a small green square. Continue playing in this manner. Pictorially record the outcome.)
      c. Play a "two attribute change game" (same as in b except each move involves a block that is different in two ways). Pictorial recordings follow.
      d. Play a "three attribute change game."

X. Drawing conclusions

A. Materials needed

1. People pieces

   Note: People pieces can easily be made by drawing stick figures on tagboard. The figures differ in the following ways: adult-child; fat, thin; clothes color; tall, short, etc. Make up your own variations.

B. Experiences

1. Missing persons game

   The student who discovers the missing piece scores one point. After going through all the cards, the student with the most points wins. Have students write their own "clue" cards. Sample "clue" card:

   A people piece has been reported missing.
   Help find the missing person.
   The person is not an adult.
   The person is thin.
   The person is female.
   The person was last seen in red clothes.

   This game can be played with plain attribute blocks and such "clue" cards as:

   Who am I?
   I am large.
   I am not yellow.
   I have four sides.
   I am not blue or green.
   I am not a diamond.
   Who am I?

2. Attribute change games are also fun to play with people pieces.
3. Children can make their own people pieces based on characteristics of their classmates.
   a. hair color
   b. color of eyes
   c. boy — girl
4. Make up a new game with the people pieces. Teach your game to a friend. (Write the rules to your game and leave it in the box marked "People Pieces Games.")

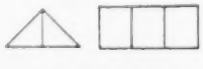
XI. Discovering geometric concepts

A. Materials needed

1. Attribute blocks

B. Experiences

1. Describe characteristics of the shapes, e.g., has 3 lines and three corners; has no corners; has 4 sides.
2. Tell what is different and what is the same about 2 blocks, 3 blocks, etc.
3. Identify blocks that are shaped like a circle, etc. Handle and feel the roundness, a square corner, etc.
4. Use blocks to show a fractional part of a whole.



Build something with blocks put together to form wholes.

5. Compare unit fractions with blocks by placing one on the other to show ½ ¼; ⅛ ¼
   Build structures in fractional patterns.
   Example: whole-half, whole-half pattern.
6. Make symmetrical designs with blocks and find the line (axis) of symmetry.
7. Use blocks to identify figures that are congruent.

8. Examine and compare characteristics of cubes, spheres, and cylinders.
   Note: Most of these activities are best integrated with the child's building projects.

XII. Measuring — discovering (volume and capacity, weight and length)

A. Materials needed
   1. Cardboard boxes or corners from large boxes

   2. Blocks or cubes
   3. Scales
   4. Pieces of string

B. Experiences
   1. Volume and capacity
      a. Fill boxes with cubes and count how many each container holds. Use the words "amount of space" instead of "volume."
      b. Use containers of similar shapes but varying capacity so children can discover that cubes are convenient to measure space.
      c. Reassemble the blocks outside the containers.
      d. Record your findings.
   2. Weight using scales
      a. Wrap blocks in paper and label them as flour, sugar, butter. Balance them against a standard or nonstandard weight. (The wrapping should integrate language and measuring experiences.)
      b. Use scales to confirm that one object is heavier than another. Which one is lighter?
      c. Compare weight of various objects. Example: How many cubes are as heavy as a pair of scissors?
   3. Length
      a. How many blocks long is: the art table?
         the carpet?
         the red bookcase?
      b. Compare blocks: Which of two is longer/shorter? Which of three is longer?
      c. Prove that it takes more small blocks than larger ones to measure the length, width, or depth of a given item.
      d. Use blocks to prove that moving an object does not change its length (invariance).
      e. Order a set of objects (up to 5) according to length.
      f. Use direct comparison to determine which of 2 objects is longer or shorter, heavier or lighter; which of three objects is longest; which of two surfaces is greater.
      g. Compare the surfaces of two geometric shapes by covering them with small squares of uniform size. Count and record.
         1. Cover the small magazine table with blocks. How many blocks did it take?
         2. Use blocks to find the area of one of the floor tiles. Record your findings.
         3. How can you show "part" of a block in your recordings? (Later, initiate use of symbols ½, ¼, etc.)

XIII. Exploring symmetry and balance

A. Materials needed
   1. Building blocks
   2. Small pattern blocks
   3. A mirror
   4. String, if desired

B. Experiences
   1. Mirror symmetry has at least one line (axis) as the dividing line. Build a tower, tall building, or a rocket ship. One half should be the mirror image of the other half. Drop a string down the center (axis) or use a mirror to check results.
   2. Make a simple symmetrical design using small pattern blocks which look alike on each side.
   3. Investigate and observe symmetrical buildings around the school. Build one of these buildings with blocks.
   4. Look at roads, bridges, and telephone poles. Make simple drawings of them and fold the pictures to reveal symmetries.
   5. Use the media center or classroom library to explore further the symmetry in our world, e.g., butterflies, parts of animals.

XIV. Field trips

A. Take a trip around the school and neighborhood to observe shapes, sizes, textures. Observe the location of buildings for mapping later.
B. Locate and observe symmetrical buildings and draw one.
C. Observe how bricks are laid, and lay blocks like brick construction.
D. Visit a brickyard.

E. Visit a house under construction. Draw pictures, build houses with blocks, and write stories about the construction and workers.
F. Invite a carpenter to school. Ask him to construct simple things from lumber.

Housekeeping Activities Work Station

I. The house

A. Materials needed
   1. Classroom space
   2. Tables
   3. Chairs
   4. Other furniture
   5. House accessories as available

B. Experiences
   1. Have children choose items to be included.
   2. Measure space to see if these items fit.
   3. Arrange furniture and accessories.
   4. Record experiences on charts, on floor plan, in a story.
   5. Have children examine their own home; then talk about differences in homes. Some facilitative questions to use are:
      a. What is the difference between a house and an apartment?
      b. What kind of materials are houses made of?
      c. Which would make a stronger house — wood, brick, or stone? Why?
      d. What kind of house would a bird have?
      e. Identify safety precautions which exist in the home.
   6. Record differences in houses. Some facilitative strategies are:
      a. Have students draw or paint a picture of their house.
      b. Have students draw the inside of their house.
      c. Discuss the term "floor plan."
      d. Show them a blueprint of a house.

e. Have students cut out pictures of different rooms in a house.
f. Have students cut out pictures of different furniture used in a house; place in the appropriate room.
g. Have students make a shoebox replica of a house.
h. Have students cut out pictures of different houses and display.
i. Have students design a house they would like to live in.
j. Examine how houses are heated/cooled.
k. Examine how water systems work in houses.

7. Suggested field trips are:
   a. Visit a furniture store or manufacturing company and an appliance store or appliance factory.
   b. Visit a house under construction.
   c. Visit a paint or hardware store.
8. Record these experiences.

II. The family

A. Materials needed
1. Costumes for dress-up
2. Pictures children bring in
3. Puppets
4. Magazines for pictures
5. Old pattern books
6. Suit or dress box
7. Optional: old television frames; puppet stage

B. Experiences
1. Provide time for dress-up and role playing. Discuss the roles of the family members. Dramatize the different family members. Compare and contrast the family roles to those roles in another country.
2. Record stories about a child's family. Facilitative questions are:
   a. What is your favorite hobby?
   b. Where does your family like to go on vacation?
   c. Describe your father's work.
3. Make puppets of the various family members (see "Puppets"). Be sure that different family compositions are represented, e.g., one parent family; two parents, a grandparent, and two children.
4. Have children make a "paper-doll family".
   a. Give children a large collection of old magazines, catalogs, or pattern books.
   b. Provide each child with scissors, a large flat box top (such as a suit or dress box), glue, and a large flat area to work.
   c. Instruct children to cut figures representative of the members of their family from magazines or catalogs.
   d. After the "paper-doll family" is assembled, ask the children to find rooms for their box-top house in the magazines, cut them out, and glue them in the box as they would be in their home. They can also look for things family members would like (example: stove, hair dryer, piano for Mother, fishing rod, pipe, brief case for Father) and add these to their houses if they choose.
   e. Record these experiences.
5. Have children bring in pictures of their families for displaying.
   a. Compare and contrast the families according to size, number, color of eyes and hair, heights and weights, etc.: How many have blue eyes? Which is the tallest? Who has the most family members? How many are over 18 years old?
   b. Graph the findings.

6. Have the children bring in baby pictures of themselves and make a display. Let them guess who is in each picture. Ask questions. How can you tell that is Andy? What color eyes did he have? Is his hair the same color now as it was then? How old do you think he was when this picture was taken? How much do you think he weighed? Do you think he could talk?
7. Have a T.V. show: The Day in the Life of the _____ Family. Use or make:
   a. Puppets
   b. Pictures of family activities
   c. Old television screen or puppet stage
   d. Creative writing for script
   e. Painted or drawn murals
   f. Collages of family happenings

III. Buying Groceries

A. Materials needed
   1. Variety of grocery items
   2. Newspapers
   3. Play money
   4. Magazines for pictures, words, etc.

B. Experiences
   1. Have the children sort and classify the groceries. Put all the cereal boxes together. Separate the small cans from the large cans. Decide which items should be put in the refrigerator and what items will be cooked. Put the different kinds of peas in a group. Discuss the color of the boxes and cans. Decide which groceries came from plants and which came from animals.
   2. Let the children alphabetize the groceries by name—apples, beans, corn—or by categories—accessories, beverages, canned goods.
   3. Have children find sound-letter relationships or specific words on the packages or cans, e.g., find the groceries with the word "contents" on them.
   4. Have children find different numbers and number concepts on the packages: Find the number 28. How much is three fluid ounces? Find the numbers with decimal points in them. What is volume? How many small cans will fill a large can? How large is the can around the base?
   5. Have children make a grocery list from the newspaper.
      a. Compare and contrast prices from the various stores.
      b. Find out how much it would cost to buy three pounds of hamburger.
      c. Find out how much one can of peas costs if three cans cost a dollar.
      d. Find the difference between the original price and the sale price.
      e. Total the prices from the different stores and find the cheapest.
      f. Estimate how much money would be used to buy the groceries.
      g. Use real or play money to purchase the groceries.
      h. Record these experiences.
   6. Have the children classify the groceries according to the food groups — fruits and vegetables, meats, dairy products, and breads and cereals.
      a. Make a collage of the basic food groups.
      b. Make a booklet of the different foods.
      c. Make papier-mache foods to represent the groups.
      d. Have a display of food packages for the different food groups.
      e. Have a tasting party with foods from the different food groups.
      f. Record these experiences.
   7. Take the children on a field trip to the supermarket. These are sample activities:
      a. Discuss how the groceries are organized.
      b. Examine shapes, colors, textures, and sizes of the different fruits and vegetables: What is the size of a watermelon? What color is an avocado? Is a pineapple rough or smooth? Is a cherry as big as a plum?

c. Have children examine the large freezer: Why are meats stored in the cooler? What happens to ice cream if it is not in the freezer? What happens to the ice in the freezer?
d. Record the experiences.
e. Locate poisonous items.
f. Encourage children to use all of their senses during their time in the store.
g. Identify advertisements.

IV. Setting the table

A. Materials needed
1. Kitchen utensils
2. Construction paper
3. Acetate

B. Experiences
1. Allow time for free discovery of the kitchen area.
2. Talk with the children about the different kitchen utensils.
   a. What things are in a kitchen?
   b. What do you do with a knife?
   c. How is a spoon different from a fork?
   d. What is the difference between a plate and a salad plate?
   e. What are spoons made of?
   f. What shape is a plate?
   g. Which is the heaviest—a knife or a spoon?
   h. Which glass will hold the most?
3. Record these responses.
4. Have children sort, count, and classify the various utensils.
   a. Put all the forks together.
   b. Count the number of spoons.
   c. Put all the tall glasses together.
   d. Find all the red plates.
   e. Find the longest and shortest utensils.
   f. Put all the pots together.
5. Have the children set the table.
   A practice placemat is made by using a sheet of 12" x 18" construction paper for the background. Glue a rectangular lace doily to this. On the doily, draw a place setting, tracing around playhouse dishes. Cover the whole placemat with acetate, or laminate so it can be cleaned. The children learn to set the table correctly by following the pattern.
6. Questions to use as preliminaries or follow-up are:
   a. If there are six people, how many glasses will you need?
   b. You have four forks. How many spoons and knives will you need?
   c. Do you put the fork on the right, or left, side of the plate?
   d. Will the glass go at the top, or bottom, of the plate?
   e. Will there be enough room for everyone to sit at the table?
   f. Is the plate close to the knife?
   g. Which plate would you set first? Which second?
7. Let the children serve food after setting the table and discuss table manners. (See cooking section for activities.)
8. Advertise what is to be served.

V. Using the telephone

A. Materials needed
1. Telephones (either toy or discarded real ones)
2. Films and booklets from telephone companies
3. Telephone directories
4. Construction paper
5. Tagboard
6. Paper fasteners

B. Experiences
1. Provide time for role playing and improvisation. Record some of these experiences.
2. Provide time and opportunity for practice in calling home number, fire, police, doctor, friends, etc.
   a. Would you talk the same way to your friend as you would the doctor?
   b. How would you use the phone if you were calling the fire department?
   c. What does the operator do?
3. Let children take and relay messages from phone calls.
   a. Did you get the caller's name?
   b. What was the return number?
   c. Who was the call for?
   d. Did the caller leave a specific message?
   e. Did you write the message down? Why?
4. Let children compile a directory of names and numbers of class members and/or emergency numbers used in the community.
5. Use the telephone directory for locating information.
6. Make a model phone in three parts from black construction paper. Help children number the dial correctly and attach it to the phone model with a brass paper fastener. The receiver can be attached with string or cord.
7. Discuss various characteristics of the telephone.
   a. What colors are telephones?
   b. What kinds of shapes are telephones?
   c. What is a telephone made of?
   d. Is a telephone hard or soft?
8. Discuss how the telephone works.
9. If possible, take an old telephone apart.
10. Visit a telephone company.
11. Record your experiences.

VI. Expanding the housekeeping center

Turn this area into a:
- Barber shop
- Beauty shop
- Grocery store
- Department store
- Restaurant
- Office building
- Mini classroom for "playing school"

A Machine Work Station

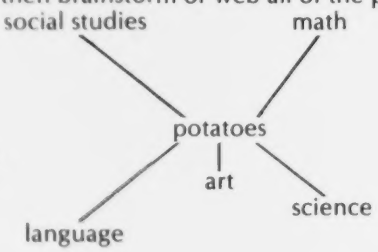
Ideas for station task cards:

1. Bring a machine which is used in your home and add it to our machines display.
2. Classify the machines in our display in three different ways. Record your findings.
3. Make a list or chart showing the different machines that are used in your home.
4. Make a list or chart showing the different machines used in our school.
5. Locate inclined planes, pulleys, levers, fulcrums, wheels and axles, gears. Keep a record of your findings for a week or more.

6. Use materials in the construction area to build a structure(s) such as a parking deck, a miniature playground. Include two or more of the following: an inclined plane, a pulley, a wheel and axle, a lever, a fulcrum, gears.
7. Balance
   A. Locate the center of the balance board. Record your findings in terms of measurements.
   B. Find the number of bolts required to balance your board when the fulcrum is:
      2 inches off center
      3 inches off center
      Record your findings.
   C. Find the number of 16 oz. cans required to balance 14 bolts when the fulcrum is:
      centered
      4 inches off center to the left
      5 inches off center to the right
      Record your findings.
   D. Make two new task cards for the balance area. You may use materials which are already there or bring materials of your own.
8. Choose any machine on our display. Write a paragraph telling how the machine works.
9. Examine carefully the gears of an egg beater and a bicycle. Draw each one. Identify likenesses and differences between the two.
10. Listen to Peter, Paul and Mary's record "The Marvelous Toy." Close your eyes. Visualize the toy. Draw the toy. Construct the toy. Write a new song or poem about your new toy. Identify any of the following which you used: inclined plane, pulley, lever, fulcrum, wheel and axles, gears. Move your body like your new toy.
11. Construct a small American community. Your community must include examples of inclined planes, levers, pulleys, wheels and axles, gears, various forms of energy. Create a story which is "set" in this community. Develop a creative dance in which all members of your community participate.
12. Examine carefully a ballpoint pen. Make a drawing of the pen. Label the parts. Determine:
    — How much ink the pen will hold.
    — How the ink gets to the ball.
    — How long it takes for the ink to dry.
    — Does the ink in all pens require the same drying time?
    — How the pen is affected by heat and cold.
13. Make a list of things which remind you of a ballpoint pen. Use your list to create a piece of writing.
14. Write a letter to your principal in which you try to convince him/her to buy some new machine for our school.
15. Try to imagine a world with no machines. How would you feel about such a world? Write about your feelings.
16. In your own private space, create a machine using parts of your body as machine parts.
17. Create a team game in which machine-like movements are part of the game.

A Potato Work Station

Work stations can begin with very simple materials such as a basket of potatoes (or apples, nuts, rocks, etc.). The teacher and aide then brainstorm or web all of the possible activities which come from the material. Each content area is considered, and strategies for children's recordings are developed. Care must be taken to keep the activities as concrete as possible. More abstract experiences such as writing and reading typically result from the initial concrete experiences.



Ideas for task cards:
Find the lightest potato in the basket.
Make potato prints in the art center.
Make your body into the **shape** of a potato.
Make up a story about a potato. Tell it to the class at sharing time.
Which potato has the most eyes?
Choose 1 potato. Find things that weigh the same.
1 potato = _____ washers
= _____ clothes pins
= _____ marbles
Find something in the room which **feels** the same as a potato.
Ask your teacher to help you add a word to the "Potatoes Remind Me Of. . ." chart.
Find the heaviest potato in the basket.
Place 5 potatoes in order of weight.
Look carefully at a potato. Smell it. Feel it. Taste it. Describe the potato.
Which sprouts quicker — a sweet potato or an Irish potato? **Keep a time record.**
Find 3 things that have something in common with a potato.
Place 5 potatoes in order by size.
Print the word "potato" in the print shop.
Close your eyes. In your "mind's eye", become a big, fat potato. **Tell** someone how it feels.
Find the potato which has the greatest distance around it. You will need string.
How many potatoes are in the basket? Guess and check.
How many ways are potatoes used? Add pictures to our **Potatoes Book**.
Plant a whole potato. Plant a piece of a potato with an eye. Plant a piece of potato without an eye. Keep a record of what happens.
Make something new out of a potato. You may use fabric, paper, toothpicks, or any material from the art center.
Find an object in the room which weighs the same as the biggest potato.

The Art Work Station

Art is an essential part of the child's day. The more intriguing and open the project is, the more beneficial the activity will be in fostering creativity in the child. A good axiom to remember is:

CREATIVITY IS STIMULATED THROUGH GUIDANCE, NOT DIRECTION.

Allowing creativity in a child is perhaps the greatest gift we can give. It will not only bring hours of enjoyment, but will also be of great benefit in everyday problem-solving situations. The creative mind is able to see several alternatives to any situation, unlike the one-tract mind of the less creative individual.

Primary Art is:

- a concrete, visual experience which the child readily grasps
- success oriented so that the child cannot be wrong, thus strengthening the ego and self-confidence
- an outlet to further develop creative potential
- an opportunity for the child to learn basic concepts through enjoyment
- focused on process and not product

The art program is a valuable emotional release allowing expression of strong, positive and negative feelings. Social growth is also an important by-product of a good art program. The child works with a group, shares materials and ideas, learns cooperation and self-control and respects the rights of others. Intellectually, the child is encouraged to refine methods, develop the ability to explain a work, know what is available and work out a solution. A fourth benefit is the physical growth development of needed motor coordination and muscular control.

In order to reap the benefit of these valuable by-products, a carefully planned, successful art activity must be provided. Otherwise, the only by-products will be frustration and disappoint-

ment. When planning, keep in mind the children's individual differences, their experiences, and the time, space and materials needed for the activity. But most important, provide STIMULATING MOTIVATION. Here are a few means of doing so:

- a variety of media are used
- music and/or feelings are tied into activity
- stories, poems, and songs to illustrate
- holiday projects
- class projects
- individual study projects
- the child is the subject of artwork
- the child's work is discussed in an open-ended manner
- empathy with the subject of the work
- the child is made aware of one or more elements and principles of design

Examples of materials to have on hand

(specific activities and directions included in appendix)

crayons	glue
paints	junk items (buttons, ribbons, etc.)
foods	clay
yarn, string, thread, rope	sticks
tissue paper	candles
foil	chalk
paper	

Activities Using Various Art Media

CRAYON

Crayon etching — Color paper heavily with patches of different colored crayons. Paint whole page with permanent India ink (black covers the crayon best). Allow ink to dry. Take a nail and etch a drawing or design exposing the crayon color below.

Crayon resist — Color a picture or design with heavy crayon marks. Then "wash" the entire picture with very thin (watery) paint. The crayon will resist the paint.

Stained glass — Color your stained glass design with heavy crayon. Save your black "lead" marks until last or they will smear. Then place page face down on newspaper and rub with Wesson Oil. When this dries, display on windows. The paper becomes transparent.

Shaved crayon — Using a paring knife, shave pieces of crayon on half a piece of waxed paper. Fold other half on top after a variety of colors have been shaved onto paper. Place newspaper above and below. Then iron until crayon melts. Frame it before displaying.

Coloring on the side — Using scrap crayons without paper wrappers, experiment with the variety of marks you can make with the side of the crayon and then create a final work using the side and the point.

Rubbings — Take either crayons or a pencil around the room with several sheets of paper. Get a collection of interesting rubbings. Then "build" a large composition by cutting out and pasting on the various textures. Let your imagination dictate where each texture should be.

Cardboard rubbings — Cut out cardboard pieces to glue on heavy paper. Build up some areas 2 layers thick, some 3 layers and others only 1 layer. Then place drawing paper over your design and make several different colored rubbings.

Pointilism — Draw a simple design or picture. Now take a red, yellow and blue crayon. "Color" your work with only dots to give the impression that it is colored all over. They have to be close together. To have secondary colors, 2 primary colors will need to be dotted in the same area (not touching each other, though).

Crayon batik — Technique #1: On squares of old sheet, draw a heavy crayon design or picture. Place between newspapers and iron until crayon is melted. Wrinkle up whole thing and place in pot of dye. Dry flat. Technique #2: Have children work around a lit candle. Before making a stroke with the crayon, they hold it in the flame until it becomes soft. After design is complete, dye and dry as in #1.

PAINT

Nature's paint brushes — Use twigs, pine branches, feathers and other items from nature to paint with.

String painting — Fold paper in half. Open it. Dip 18" string into paint. Lay it on half the paper. Press the other half on top. Pull out string while pressing.

Spatter painting — If you don't have a big, fancy wooden frame, just stretch out a coat hanger and sew on your screening. This is easily made, easy to store and has good mobility for the children.

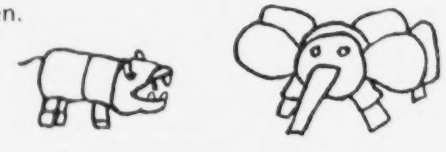
Straw painting (for realism or abstract designs) — Drop puddles of paint on the paper; then blow through a straw to direct the streams of paint.

Blob painting — Fold paper in half. Open it. Place drops or small blobs of 2 or 3 colors on half the sheet. Close along fold. Press evenly. Open to dry. May outline recognizable shapes with a black marker.

Ivory Flakes painting — Use an electric mixer to whip Ivory Flakes and water into a thick, creamy consistency. Put into various containers and add food color. Stir. (Especially effective on dark colored construction paper.)

FOODS

Marshmallow animals — Using toothpicks to hold them together, build a variety of animals. You may wish to display them
in a diorama made by the children.



Vegetable printing — Cut vegetables in various ways. Blot dry. Dip into paint and print on paper.

Pudding — Mix instant pudding according to directions. Food coloring may be added to vanilla. Now put a blob on finger paint paper and have a yummy time finger painting.

Pasta-Jewelry — String it and paint it. Spray with varnish for a lasting finish. Other uses of pasta:

- glue **pasta** on paper in an interesting design using a variety of shapes of pasta
- **print** with different shapes of pasta.

Stained glass cookies — Roll cookie dough into long, thin "snakes"; then build a cookie with these, leaving openings for the "glass". The cookies should be on a piece of waxed paper. Fill the openings with pieces of crushed rock candy. Bake at 350 degrees until cookies are done.

Apple-head doll — Peel apple. Carve exaggerated face and place apple on a popsicle stick. Allow a few weeks to dry. Complete the doll by adding yarn hair and placing the head on a bottle with clothing made of starched cotton.

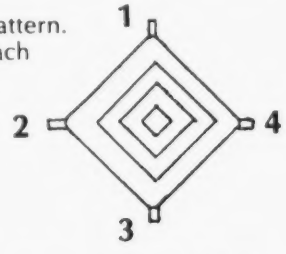
YARN, STRING, THREAD AND ROPE

Meat tray stitching — Using yarn and a large rug needle, stitch picture or design onto meat tray.

Large-guage needlepoint canvas or screening — Using large embroidery needle and string or embroidery floss, stitch design.

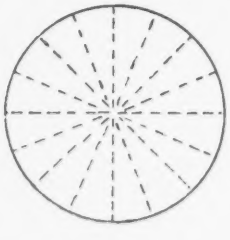
Glued yarn — Glue colorful pieces of yarn on paper in an interesting pattern.

"Ojos de Dios" (God's Eyes) — Tie 2 sticks together at right angles to each other. Then wrap the yarn around stick #1 (over and around); then stick #2 (over and around); stick #3 (over and around); stick #4; stick #1; stick #2; etc., etc., until yarn has almost reached the ends of the sticks.

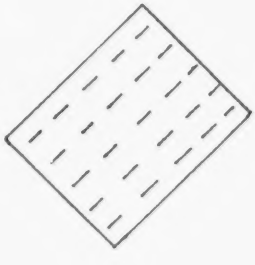


Pom-pom animals — Wrap yarn around hand or fingers about 100 times, then tie tightly around the middle and snip the loops at the ends. Fluff and trim. Create real or make-believe animals or "warm fuzzies".

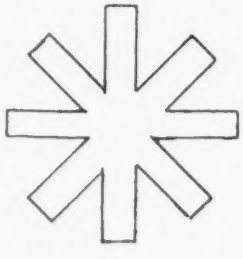
Weaving — Weave on a loom or on cardboard using yarn or fabric. Cardboard looms may be oblong or circular.



Odd number of slits around the edge. String up the yarn using the slits to form wagon wheel pattern. Use 2nd color to weave over and under spokes.



over & under—the spokes of cardboard



same as except yarn is in straight rows instead

Macrame — Use 1 or 2 basic knots with about 8 strands of string or yarn.

French Knitting — Loop yarn around each of the nails. Repeat. Now pass the bottom loop over the top loop and off the nail. When this is completed for each nail, loop yarn around each nail again. Repeat processes until you have a long strand of knitting. This can be used as a belt or a head band, or it may be coiled into a rug and sewn. Use flexible yarn, not rug yarn.

TISSUE PAPER

Washed background — Tear uneven strips and place on heavy white paper. Paint over whole sheet with 1 part white glue mixed with 4 parts water. Allow sheet to dry. Use black magic markers to write or draw over the colorful background.

Stained glass windows — Cut out black construction paper with exacto knife. Tear different colors of tissue out to fit each space. Glue on the back of the black paper. Display in window.

Tissue-covered eggs — Tear off small pieces of tissue. Using 1 part glue to 4 parts water, glue one piece of tissue at the time onto egg.

Tissue mobiles — Tear various shapes and colors of tissue paper. Place between 2 pieces of clear paper (contact or acetate).

Tissue on a bottle — Do this just as the tissue-covered egg was done. Put an arrangement of dried grasses in the bottle.

3-D Tissue Art — Cut 2 1/2" circles. Press each circle around pointer finger and glue it into a pre-drawn picture. Place pieces so close together that paper does not show through.

FOIL

Stained glass window — Crumple foil, then flatten it. Paint sections with various colors of permanent ink. It has irridescent look.

Etching on paint — Add liquid detergent to paint and paint a small piece of foil. After paint is dry, scratch out a design using a blunt point.

Ink resist — On a sheet of foil, place drops or blobs of permanent ink. Then squirt on lighter fluid. The fluid resists the ink. Dry.

Junk design — Glue hardware, sticks and other doo-dads on heavy cardboard. Cover with a large crumpled sheet of foil. Tape on the back. Then rub with black ink to "antique" the look.

CANDLES

Tower candles — Melt paraffin in a can in a pot of boiling water. Pour into different cups and add crayon shavings for color. When hardened, tear away cups, poke hole in each and spread wick through.

Layered candles — Place wick in cup; then add one cup of melted paraffin at a time. Allow each layer to cool before adding another. When cup is filled and cool, tear away cup.

Swiss Cheese candles — Place wick in mold; then fill half way with crushed ice. Pour in wax to half-way point. When cool, drain off water and tear off mold.

Sand candles — Like sand casting except colored wax is used instead of plaster and a wick is placed in first.

BAKER'S DOUGH

Recipe: 2 c. salt, 5 c. flour, about 2 c. warm water, 1 tbsp. powdered alum to prevent spoiling. For color, add 1 tsp. oil and some food coloring.

Use baker's dough to make:

- Jewelry (don't forget the hole to string it together)
- Christmas tree ornaments (remember the hole)
- Illustrations for your favorite story
- Models

CHALK

6 swirls — Fill a dish pan with water. Scrape shavings of 2 or 3 colors of chalk into water. Swirl once, gently, with finger. Place a sheet of white drawing paper in the pan. Do not submerge. Pull out and dry flat. The chalk adheres to the paper.
Chalk shows up dramatically on dark colored paper.

Wet paper — Saturate a small piece of paper; then use the sides of the chalk to make designs.

PAPIER-MACHE

Masks — Cover half a balloon or a tin pan or a paper plate (rubbed with Vaseline first) with layers of newspaper strips dipped in a wheat paste mixture. Allow it to dry after each 3-layer application. Usually 6 layers is enough. Glue on any 3-D features such as nose, ears, etc.; then cover with more strips. Dry. Paint.

Animal banks — Make like the masks except you will start with balloons the shape of the animal.

Meat tray features — Make (or build) a scary face in a meat tray.

On bottles — Same as above except on a bottle.

Easter baskets — Same as above except a handle will be added.

THE CHILD AS SUBJECT

"Me Box" — Use pictures, words and cutouts to tell about yourself. Put them on all 6 sides of a box. One side may be devoted to a written autobiography. Make a design with your name using much repetition.

First letter design — same as above except only the first letter of the child's name is used.

"Walk a Mile in my Shoes" — Trace around the sole of a tennis shoe. Design and vividly color the tread of the shoe after cutting out the shape of the shoe. On the back, the child's autobiography, written on shoe-shaped paper, can be attached.

DYEING

Folded paper towel — Fold in different ways and dip corners in food coloring and water mixture. Then dry.

Tie dyeing — Using various folding procedures, dye eggs with food coloring and oil and vinegar. In individual containers, fill 1/2 way up with water, then 3/4 up with vinegar. Add one tbsp. oil. Roll egg in container adding drops of food coloring as more color is needed. Don't use more than 2 colors per egg.

MISCELLANEOUS

Draw on styrofoam with magic markers. Bake in 350 degrees oven for 5-10 minutes. It shrinks!

Cooking Station

Cooking provides one of the most integrated experiences possible for students. Carefully planned activities can and should include math (measuring, adding, subtracting), science (observing, measuring, classifying, recording, experimenting), language (reading and following directions, listening, recording, vocabulary, grocery list, description, etc.), health (food groups, diet, etc.). All of the senses are involved as children develop skills in a genuinely enjoyable way.

Trying to cook with a whole class is highly questionable. Very few will know the whole process or what the ingredients are, much less have the actual experience or responsibility or the joy of seeing the process through from beginning to end. Single portion cooking or small group cooking is a superior way to approach this learning activity. Many teachers prefer to have a regular cooking center in their classroom. If you have not yet tried a cooking center, Christmas is the perfect time to do so. But don't put your center away with the tree ornaments, since it can and should be used all year as a practical and enjoyable way for students to acquire concepts and skills.

When setting up a cooking station, you might consider these activities and materials:

1. Discuss the kinds of materials needed for cooking at school and a logical location in the room.
2. Formulate and record plans for managing the station and safety factors involved.
3. Involve parents in setting up the area.
   a. Ask for utensils.
   b. Ask for volunteers to send staple food items.
   c. Ask for volunteers to demonstrate and/or assist in activities in the classroom.
4. Collect empty food containers to use.
5. Explore, discover, and record the kinds of information which can be obtained from food packages.
6. Have a tasting party to taste food of different qualities.
7. Feel different foods (meal, flour, sugar, salt) to discover consistencies.
8. Prepare containers with foods having obvious differences in smell (vinegar, spices, flavorings).
9. Discover sounds involved in cooking (boiling, simmering, steaming, grinding, grating, scraping).
10. Make books of recipes to use during the year. Include a table of contents.
11. Discuss food allergies. Make note of any allergies which the children may have.
12. Look through basal readers for simple recipes.
13. Investigate the many sources of recipes (newspapers, magazines, etc.).
14. Discuss the language of recipes. Develop a vocabulary list.
15. Begin a pen-pal program with students in a class in another part of the world. Ask them to send copies of recipes peculiar to their region or lists of favorite foods. Record information and compare likenesses and differences between the two classes. Graph information.
16. Establish a classroom grocery store.
17. Visit the school cafeteria. Investigate cooking utensils and equipment, and view quantity buying of food items. Record findings.
18. Make a filmstrip showing how to begin a cooking center.
19. Provide utensils for metric and standard measure.
20. Visit a supermarket.
21. Develop a food dictionary.
22. Graph the favorite foods of people in the room.
23. Invite a chef as a resource person.
24. Make up original recipes.
25. Play being a particular food.
26. Collect favorite recipes of mothers, teachers, daddies.

27. Invite a resource person from a different ethnic origin to come in and prepare a food. Record this demonstration.
28. Collect menus from different restaurants.
29. Assemble and explore a collection of cookbooks.
30. Investigate restaurant lingo.

Following are some recipes you might wish to try with your students:

Popcorn Cake

4 quarts popped corn
1 pound small gumdrops
1/2 pound salted peanuts
1/2 cup margarine
1/2 cup vegetable oil
1 pound marshmallows

(1) Mix popcorn, gumdrops, and peanuts in a large bowl.
(2) Melt margarine, oil, and marshmallows together over low heat, stirring often.
(3) Pour heated mixture over popcorn mixture.
(4) Mix well.
(5) Pour into greased tube pan.
Let stand until cool.

Mints

1 box powdered sugar
1 stick margarine
1 tablespoon evaporated milk
Peppermint flavoring, a few drops
Green food coloring, a few drops

(1) Allow margarine to soften at room temperature.
(2) Mix margarine, sugar, and milk.
(3) Add peppermint flavoring.
(4) Add food color.
(5) Mix well.
(6) Roll small amounts into balls.

Pickled Eggs

Hard-cooked eggs (one per child)
1 quart pickled beets
1 cup vinegar
1 cup water
1 teaspoon salt
2 tablespoons sugar
8 whole cloves
1 teaspoon celery seeds

(1) Boil eggs about 15 minutes.
(2) Peel eggs and put into jar.
(3) Pour beets & juice over eggs.
(4) Put other ingredients into a pot and boil.
(5) Pour over eggs and beets.
(6) Put lid on jar. Place in refrigerator for 2 weeks.

Amish Grapenuts

3 cups whole wheat flour
2 t. baking soda
1 cup brown sugar
1 t. salt
Buttermilk as needed
1 t. vanilla
1 cup raisins and/or nuts

Yield: 3 cups

(1) Blend dry ingredients with buttermilk.
(2) Add vanilla.
(3) Put into cake pan.
(4) Bake at 300 degrees until golden brown.
(5) Cool. Crumble. Dry.
(6) Store in tightly lidded jar, or place a fabric circle between the lid and the ring for a perfect Christmas gift.

Haystacks

1 package butterscotch morsels
1 can salted cocktail peanuts
1 can chow mein noodles
Jelly beans

(1) Melt butterscotch morsels in the top of a double boiler.
(2) Remove from heat and add salted cocktail peanuts and chow mein noodles.
(3) Drop by teaspoons onto waxed paper. Form into tiny birds' nests.
(4) Allow to harden and store in container in refrigerator.
(5) Add jelly beans when ready to serve.

Gingerbread Man

1/2 cup butter or margarine
1 cup sugar
1 egg
1 1/2 cup flour
1 t. baking powder
1 t. ginger

(1) Cream butter and sugar together.
(2) Add egg.
(3) Mix in flour, baking powder, and ginger.
(4) Roll out dough.
(5) Cut out shape of man.
(6) Bake at 375 degrees until brown.

No Cook Candy

1 cup honey — Yield: 36 balls, 1 1/2"
1 cup dry milk powder
1 cup peanut butter or chocolate sprinkles

(1) Mix ingredients.
(2) Shape into balls.
(3) Roll in nuts or sprinkles.

Cinnamon Rolls

2 cups Bisquick
2/3 cup milk
Soft butter
1/4 cup sugar
1 t. cinnamon

(1) Stir Bisquick and milk together with a fork until it forms a soft dough.
(2) Knead dough until still and sticky.
(3) Roll dough around on lightly floured surface.
(4) Knead gently by folding, pressing, and turning until the dough is smooth.
(5) Roll dough into rectangle with lightly floured rolling pin.
(6) Spread with soft butter.
(7) Sprinkle with mixture of sugar and cinnamon.
(8) Beginning at the long side, tightly roll up dough. Seal by pinching edge into roll.
(9) Cut into 12 slices.
(10) Place each slice, cut side down, in a greased 12-cup muffin tin.
(11) Bake at 425 degrees.

Rolled Cookies

3 1/2 cups sifted flour — Yield: 6 dozen
1 tsp. baking powder
1/2 tsp. salt
1 cup shortening
1 1/2 cups sugar
2 well beaten eggs
1 1/2 tsp. vanilla

(1) Sift baking powder, salt, flour.
(2) Cream shortening, add sugar and continue to beat until light.
(3) Add well beaten eggs and vanilla.
(4) Combine dry ingredients and cream mixture.
(5) Mix thoroughly and chill.
(6) Roll on floured board and cut with cookie cutter, or form balls of dough and flatten with bottom of glass or palm of hand or tines of fork.
(7) Bake at 400 degrees for 6-10 minutes.

1. Management processes and organization of materials assist children in effectively and efficiently using the environment.
2. Flexible use of space and furniture is essential.
3. Opportunities for independent work should be available.
4. A warm, caring environment in which a child feels safe, secure, and accepted promotes optimal learning.

1

2

3

4

1

1. Aides assist children in putting their experiences into writing.
2. The playground is an important part of the learning environment.
3. The teacher and the aide work together to mesh all components of the environment and the curriculum.

3

2

1

2

3

1. While not physically a part of the environment, the media center provides resources and assistance necessary for the total program.
2. The need for privacy must be considered in the organization of the room.
3. As children clean up and organize a block center, they assume personal responsibility for their learning environment while participating in a concrete exercise.

Evaluation

- **How Well Am I Doing**
- **Job Description — Teacher Aide**
- **Performance Appraisal Criteria — Teacher Aide**
- **Sample Evidences — Teacher Aide**

How Well Am I Doing?

Every day, each one of us makes judgments. When we look at our checking account balance and plan our monthly expenditures, we are judging how much money we can spend each day without having to write a bad check or go without food. When we go shopping and look at sweaters, we make a series of judgments before we decide whether to buy a sweater or not. We think about how we will use the sweater (Will the weather be cool or cold?) We think about the material the sweater is made of. (Wool may last longer, but it's usually more expensive than orlon.) We think about color and style. (Is green really flattering to me? Do I want a pullover or a cardigan?) Eventually, we consider price. (Can I afford this sweater now?)

Each of these questions requires us to evaluate a different aspect of the sweater before we make the ultimate decision: to buy or not to buy. Depending upon indiviudal differences, people make different decisions. That is, differrent people emphasize different criteria when making judgments. These different criteria are acceptable on a wide range of issues, but when it comes to evaluating job performance, it is important that the evaluation be **fair**. We want each person in a job to be evaluated using the same criteria.

We also want evaluation to lead to growth. It's easy to imagine evaluation as a punishment, or a way to get revenge. The evaluator uses the evaluation as a way to get even with a person who has been outspoken in meetings or who has been perceived as threatening. This attitude—evaluation as revenge—leads people to fear evaluation or to think of it as an unpleasant, if necessary, event in the normal work life.

If, however, evaluation helps the evaluatee understand more clearly the requirements of the job and his/her performance of the tasks that make up the job, then evaluation can be rewarding and can help set targets for improvement. Then, when the evaluation cycle is completed, we can measure our improved growth.

In education, a great deal of research has been conducted that allows us to specify conditions under which youngsters seem to learn more efficiently. While much of this research has focused on what teachers do to help youngsters learn, it is easy to see how the activities of teacher's aides can help in this process of educating children. Using this research base, the State Department of Public Instruction has developed a job description for instructional aides and an evaluation instrument that allows principals to measure the performance of individual aides.

Although local conditions and individual preferences will dictate that each aide will perform his/her tasks in unique ways, it is possible to look at the aide's job as having three major functions:

1) The aide provides assistance in instruction.
2) The aide provides clerical and technical assistance.
3) The aide provides general assistance to the teacher, the children, and the school.

Within each of these major functions, several specific behaviors are spelled out that establish expectation for what the aide will do. Usually the "how"—the creative way in which the individual does the job—is **not** specified. No one, for example, can predict all possible ways for an aide to assist in the preparation of instructional materials. We can, however, evaluate whether, and how well, aides carry out the task.

The focus of the evaluation conference is on whether and how well the tasks are carried out. In the conference you have an obligation to yourself and your evaluator to describe how you carried out the task. The evaluator cannot know specifically how each person in the school carries out his/her work assignment. Therefore, if you go through the conference in a wholly passive way—just listening, for example—you are unable to help the evaluator understand fully how well you've performed your job.

Without your input, the evaluation will not be a useful summary of your year of experience, nor will it enable you to target areas for professional growth and improvement.

Socrates said that "the unexamined life is not worth living." What he meant, of course, is that we need to be aware of what we do and why we do it. In this way, we can consciously work toward improving those aspects of our life—personal and professional—that we want to change.

Obviously, then, evaluation must be a continuous process, not an annual conference with a supervisor. In order to help with this on-going process of self-evaluation, we have brought together three items that can help you evaluate your work. First, on the pages that follow, you will find a job description for a teacher aide. Notice that the description includes a statement of purpose that is related to the three major functions carried out by the aide: instructional assistance, clerical/technical assistance, and general classroom assistance.

These functions are defined by specific practices on the evaluation instrument. These 21 practices were selected by a group of aides, teachers, and principals who assisted the staff of the Division of Personnel Relations, SDPI, in designing the instrument. This group came to consensus that these practices represent the scope of responsibilities carried out by aides. Notice that the practices do not dictate **how** the practice looks in different situations. There are, for example, many ways in which an aide might assist in the preparation of instructional materials (A.3). The evaluation instrument does not prescribe a "best" way. Rather, the instrument asks how well the person does this practice.

Finally, the Sample Evidences describe more fully what is encompassed by each of the functions of the appraisal instrument. Again, these evidences don't prescribe specific behavior. Such a prescription would limit the creativity that each aide and teacher might bring to job performance. What the evidences do is to help you think about the complex dimensions of your job.

Evaluation, then, is both an on-going process for measuring, or thinking about, how well you perform your tasks in comparison to an ideal or standard. Evaluation is also a formal event that allows you to share information about the specific action you have taken to meet—or exceed—the standard set for your job. Evaluation is your best way to understand fully the satisfaction that you derive from knowing you've done a tough job well.

JOB DESCRIPTION
TEACHER AIDE

Reports To: Principal and Teacher

Purpose: To assist the teacher in planning, organizing and implementing the instructional program. To provide support for clerical, technical and general classroom functions.

MAJOR FUNCTIONS:

A. **INSTRUCTIONAL ASSISTANCE**
The teacher aide assists the teacher with planning and organizing, evaluating instructional activities, developing classroom procedures and preparing necessary materials. The teacher aide is involved in activities to improve the total school program and assists the teacher in ensuring a safe and healthful environment.

B. **CLERICAL/TECHNICAL ASSISTANCE**
The teacher aide demonstrates clerical and technical skills necessary to assist the implementation of the program.

C. **GENERAL CLASSROOM ASSISTANCE**
The teacher aide works to communicate the needs of the school and children, assists students with the understanding of rules and regulations, assists in maintaining cleanliness and neatness, and conducts self as a positive role model.

PERFORMANCE APPRAISAL CRITERIA
TEACHER AIDE

Teacher Aide's Name _____

School _____

INSTRUCTIONS
1. The evaluator is to rate the teacher aide on a five-point scale as indicated below.
2. The evaluator is encouraged to add pertinent comments at the end of each major function.
3. The teacher aide is provided an opportunity to react to the evaluator's ratings and comments.
4. The evaluator and the teacher aide must discuss the results of the appraisal and any recommended action pertinent to it.
5. The teacher aide and the evaluator must sign the instrument in the assigned spaces.
6. The instrument must be filed in the teacher aide's personnel folder.

MAJOR FUNCTIONS:	Rating Scale (Please Check)					
	Performs Unsatisfactory	Needs Improvement In Performance	Meets Performance Expectations	Exceeds Performance Expectations	Superior Performance	Not Applicable
A. INSTRUCTIONAL ASSISTANCE						
1. Assists the teacher with planning and organizing instructional duties and activities.	☐	☐	☐	☐	☐	☐
2. Cooperates in developing procedures for the classroom.	☐	☐	☐	☐	☐	☐
3. Assists in the preparation of materials.	☐	☐	☐	☐	☐	☐
4. Maintains awareness of goals and objectives of supervising teacher.	☐	☐	☐	☐	☐	☐
5. Assists in implementing the planned program.	☐	☐	☐	☐	☐	☐
6. Provides information to teacher(s) concerning program evaluation.	☐	☐	☐	☐	☐	☐
7. Is involved in activities to improve effectiveness of the total school program.	☐	☐	☐	☐	☐	☐
8. Works to facilitate accomplishment of the total school program.	☐	☐	☐	☐	☐	☐
9. Carries out supervisory duties in a prompt and responsible manner to ensure a safe and healthful environment.	☐	☐	☐	☐	☐	☐

COMMENTS: _____

_____

_____

	Performs Unsatisfactory	Needs Improvement In Performance	Meets Performance Expectations	Exceeds Performance Expectations	Superior Performance	Not Applicable
B. CLERICAL/TECHNICAL ASSISTANCE						
1. Collects and records money according to established procedures.	☐	☐	☐	☐	☐	☐
2. Maintains classroom files and records in accordance with applicable rules, laws and regulations.	☐	☐	☐	☐	☐	☐
3. Performs clerical duties as assigned.	☐	☐	☐	☐	☐	☐
4. Demonstrates a knowledge of the uses of items of equipment.	☐	☐	☐	☐	☐	☐
5. Has technical skill in operating equipment.	☐	☐	☐	☐	☐	☐
6. Assembles materials to get the best effect.	☐	☐	☐	☐	☐	☐

COMMENTS: _____

_____

C. GENERAL CLASSROOM ASSISTANCE						
1. Exhibits positive behavior toward children, parents, staff and administrators.	☐	☐	☐	☐	☐	☐
2. Works to communicate the needs of school and children to parents and the community in a positive manner.	☐	☐	☐	☐	☐	☐
3. Conducts self as a positive role model in the school and community.	☐	☐	☐	☐	☐	☐
4. Assists students with understanding, interpreting and adhering to laws, rules and regulations.	☐	☐	☐	☐	☐	☐
5. Shares the responsibility for school cleanliness and neatness.	☐	☐	☐	☐	☐	☐
6. Assists in developing good housekeeping skills and regard for the environment both inside and outside the classroom.	☐	☐	☐	☐	☐	☐

COMMENTS: _____

_____

Evaluator's Summary Comments: _____

_____

Teacher Aide's Reaction to Evaluation: _____

_____

_____ _____

Evaluator's Signature and Date

Teacher Aide's Signature and Date

Signature indicates that the written evaluation has been seen and discussed

SAMPLE EVIDENCES
TEACHER AIDE

The following are suggested as examples of performance which might be displayed by the person being evaluated as evidence that each of the various functions are being performed. Because each work situation is different, it is not likely that all of these will be demonstrated by the aide being evaluated. The evaluator is urged to develop a similar list of expectations which are specific for the aide being evaluated.

MAJOR FUNCTIONS

A. **PLANNING/ORGANIZING THE INSTRUCTIONAL PROGRAM**

There is evidence that the aide:

1. Assists the teacher with planning and organizing instructional duties and activities.
   Evidences:
   a. works with the teacher as a partner sharing ideas and developing plans
   b. helps develop activities to meet individual needs
2. Cooperates in developing procedures for the classroom.
   Evidences:
   a. demonstrates awareness of planning for regular planned duties
   b. demonstrates knowledge of prior planning for unexpected or impromptu learning activities
3. Assists in the preparation of materials.
   Evidences:
   a. locates and collects requested resources materials
   b. constructs and prepares instructional materials to meet individual needs

B. **IMPLEMENTING THE INSTRUCTIONAL PROGRAM**

There is evidence that the aide:

1. Maintains awareness of goals and objectives of supervising teacher.
   Evidences:
   a. demonstrates understanding and participation in the program goals
   b. follows direction of teacher toward obtaining goals and objectives
   c. demonstrates willingness and enthusiasm toward reaching stated goals
2. Assists in implementing the planned program.
   Evidences:
   a. seeks information about students concerning needs, strengths, weaknesses, and problems
   b. works with individuals and small groups to reinforce, help remediate and assist with challenging tasks
   c. arranges appropriate materials, equipment and resources to implement program such as films, books, field trips, art supplies, etc.
3. Provides information to teacher(s) concerning program evaluation.
   Evidences:
   a. monitors success of activities
   b. suggests modifications to program
   c. suggests needed resource materials

C. **CLERICAL/TECHNICAL**

There is evidence that the aide:

1. Collects and records money according to established procedures.
   Evidences:
   a. collects money on a daily, weekly, or periodical basis as necessary
   b. writes receipts and maintains accurate accounting of monies

2. Maintains classroom files and records in accordance with applicable rules, laws and regulations.
   Evidences:
   a. maintains health records
   b. collects, checks and records grades, classroom work, homework, workbooks
   c. makes records of child behavior
   d. keeps attendance records
3. Performs clerical duties as assigned.
   Evidences:
   a. writes letters, notes and permission slips
   b. does filing
   c. maintains inventories as assigned
   d. processes, orders materials and supplies
4. Demonstrates a knowledge of the uses of items of equipment.
   Evidences:
   a. is familiar with new technology
   b. suggests appropriate media such as t.v., computer, overhead, filmstrip, 16 mm projector, opaque, etc.
   c. shows others how to use equipment properly
5. Has technical skill in operating equipment.
   Evidences:
   a. can use filmstrip projector, opaque, 16 mm, overhead, t.v., record player, headset, film viewers, etc.
   b. can adjust filmstrip projector, 16 mm, t.v., film viewers, etc.
   c. can make minor repairs to filmstrip, 16 mm, record player, headset
6. Assembles materials to get the best effect.
   Evidences:
   a. can assemble materials needed for a certain project, such as art, science, math, social studies, language arts (integrated day)
   b. is capable of arranging an attractive display
   c. has materials ready when needed

D. **PROFESSIONAL BEHAVIOR**

There is evidence that the aide:

1. Is involved in activities to improve effectiveness of the total school program.
   Evidences:
   a. participates in necessary meetings and inservice workshops
   b. shows a willingness to be involved in school and/or class projects
   c. understands and adheres to established school/board laws, rules and regulations
   d. accepts suggestions from professional personnel
   e. understands purpose of activities
   f. demonstrates current knowledge of concepts of child growth and development
2. Exhibits positive behavior toward children, parents, staff and administrators.
   Evidences:
   a. is punctual
   b. is regular in attendance
   c. uses time efficiently
   d. adapts readily to change
   e. uses correct grammar
   f. speaks in a clear and pleasant manner

E. **PUBLIC RELATIONS**

There is evidence that the aide:

1. Works to communicate the needs of school and children to parents and the community in a positive manner.
   Evidences:
   a. discusses student needs in a positive manner
   b. serves on committees
   c. participates in discussion of student evaluation in professional manner
2. Works to facilitate accomplishment of the total school program.
   Evidences:
   a. participates in school sponsored activities
   b. cooperates with staff to bring about smooth working relationships
3. Conducts self as a positive role model in the school and community.
   Evidences:
   a. conducts self in a professional manner
   b. speaks positively about the school, teachers and students

F. **MONITORIAL**

There is evidence that the aide:

1. Assists students with understanding, interpreting, and adhering to laws, rules and regulations.
   Evidences:
   a. complies with school rules and regulations
   b. reconciles minor conflicts among students, corrects minor misbehavior and reports major problems to the teacher
   c. proctors during testing
2. Carries out supervisory duties in a prompt and responsible manner to ensure a safe and healthful environment.
   Evidences:
   a. supervises in bus loading area, cafeteria, restrooms, halls, classroom, playground, etc.
   b. supervises pupils engaged in games or activities already familiar to them
   c. takes responsibility for the class in the absence of the teacher
   d. helps maintain order during safety drills (fire, tornado, etc.)
   e. escorts and supervises students in movement to other locations in the building and on the grounds

G. **HOUSEKEEPING**

There is evidence that the aide:

1. Shares the responsibility for classroom and school cleanliness and neatness.
   Evidences:
   a. helps teachers and students clean up after activities
   b. assists teachers and students during meals and snack time
   c. helps with the care and feeding of pets, plants, etc.
2. Assists in developing good housekeeping skills and regard for the environment both inside and outside the classroom.
   Evidences:
   a. encourages students to use good manners
   b. encourages respect for the property of others

Appendices

- **Finger Plays**
- **Choral Speaking**
- **Books For Pattern Writing**
- **References — Pamphlets**
- **Children's Books**
- **Professional Books for Instructional Aides and Teachers**

APPENDIX A

FINGER PLAYS

Bird Story

A father and mother bird	[Hold up first two fingers of right hand.]
lived in a tree.	
In their nest were babies,	[Hold up three fingers of left hand.]
One, two, and three.	[Hold up two fingers of right hand.]
The parent birds fed them	[Hold up three fingers of left hand.]
All day long.	
And soon the babies	[Move three fingers as in fluttering.]
Were big and strong.	
They fluttered down	[Move three fingers as if running along the ground.]
From the nest one day,	
And hid in some bushes	[Move thumb of right hand slowly.]
Not far away.	
The father bird saw	
A cat creep by.	
He cried: "My children,	
You'll have to fly!	
You needn't be fearful,	[Move father-bird finger & three baby-bird fingers upward.]
Just follow me!"	
And off they flew	[Same.]
To their nest in the tree.	

Honey Bear

A little brown bear went in	
Search of some honey.	
Isn't it funny — a bear	
wanting honey?	
He sniffed at the breeze,	[Sniff air with nose.]
And he listened for bees,	[Cup hand to ear and listen.]
And would you believe it,	
He even climbed trees.	[Fingers of one hand climb opposite arm.]

Houses

This is a nest for Mr. Bluebird.	[Cup both hands, palms up, little fingers together.]
This is the hive for Mr. Bee.	[Both fists together, palm to palm]
This is the hole for Bunny Rabbit.	[Make hole, fingertips together.]
And this is the house for me.	[Fingertips together, make a peak.]

The Squirrel Gathers Nuts

These are the brown leaves
Fluttering down, [Flutter hands to the ground.]

And this is the tall tree [Hold up right arm.]
Bare and brown.
This is the squirrel [Form fist with left hand — thumb up.]

With eyes so bright; [Form two circles with thumbs and index fingers.]
Hunting for nuts
With all his might.
This is the hole [Form hole with right thumb and index finger.]
Where day by day,
Nut after nut [Pretend to place nuts in hole with left hand.]
He stores away.
When winter comes
With its cold and storm,
He'll sleep curled up [Circle right hand around left fist.]
All snug and warm.

B-I-N-G-O

There was a man who had a dog, [X indicates claps instead of saying letters.]
And Bingo was his name - O.
B-I-N-G-O, B-I-N-G-O, B-I-N-G-O,
and Bingo was his name - O.

There was a man who had a dog,
And Bingo was his name - O.
B-I-N-G-X, B-I-N-G-X, B-I-N-G-X,
and Bingo was his name - O.

There was a man who had a dog,
And Bingo was his name - O.
B-I-N-X-X, B-I-N-X-X, B-I-N-X-X,
and Bingo was his name - O.

There was a man who had a dog,
And Bingo was his name - O.
B-I-X-X-X, B-I-X-X-X, B-I-X-X-X,
and Bingo was his name - O.

There was a man who had a dog,
And Bingo was his name - O.
B-X-X-X-X, B-X-X-X-X, B-X-X-X-X,
and Bingo was his name - O.

There was a man who had a dog,
And Bingo was his name - O.
X-X-X-X-X, X-X-X-X-X, X-X-X-X-X,
and Bingo was his name - O.

Galloping

I like to ride
On a gallopy horse.
Gillopy, gallopy,
Trot - trot - trot.
Over the hilltop,
Down through the land,
Leaping the fence
to the barnyard lot.
Oh, it's rillicking — rollicking
Fun — is it not
To ride gillipy, gallopy
Trot - trot - trot.
To ride gillipy, gallopy
Trot - trot - trot.

[Close fists, thumbs upward. Make large semi-circles with both hands.]
[Make up & down short motions with hands.]

[Large motion of jumping fence.]

[Galloping motion with hands.]
[Short up & down motion.]

Kittens

Five little kittens
Sleeping on a chair.
One rolled off,
Leaving four there.

Four little kittens
One climbed a tree,
To look in a bird's nest.
Then there were three.

Three little kittens
Wondered what to do.
One saw a mouse,
Then there were two.

Two little kittens
Playing near a wall.
One little kitten
Chased a red ball.

One little kitten
With fur soft as silk,
Left all alone
To drink a dish of milk.

[Hold up five fingers. Bend them down as verse progresses.]

[Action may be added to fit words.]

The Farmyard

In the farmyard at the end of the day,
All the animals politely say,
"Thank you for my food today."
The cow says, "Moo." [Point to thumb.]
The pigeon, "Coo." [Point to index finger.]
The sheep says, "Baa." [Point to middle finger.]
The lamb says, "Maaa." [Point to fourth finger.]
The hen, "Cluck, cluck, cluck." [Point to little finger.]
"Quack," says the duck. [Point to the various fingers for remaining animals.]
The dog, "Bow wow."
The horse, "Neigh."
The pig grunts, "Oink."
Then the barn is locked up tight.
And the farmer says, "Good Night." [Hands together against cheek.]

Clocks

Big clocks make a sound like
T-i-c-k, t-o-c-k, t-i-c-k,
T-o-c-k. [Rest elbows on hips; extend forearms and index fingers up and move arms sideways slowly and rhythmically.]

Small clocks make a sound like
Tick, tock, tick, tock. [Move arms faster.]
And the very tiny clocks make a sound
Like tick, tick, tock, tock. [Move arms faster.]
Tick, tick, tock, tock, tick, tick,
tock, tock.

My House

I'm going to build a little house, [Fingers form roof.]
With windows big and bright. [Two index fingers and thumbs.]

With chimney tall and curling smoke, [Stand with arms up in the air.]
Drifting out of sight. [Hands flutter down.]
In winter when the snowflakes fall, [Hands cupped to ear.]
Or when I hear a storm, [Sit down.]
I'll go sit in my little house, [Cross arms over chest.]
Where I'll be snug and warm.

Touch

I love soft things so very much, [Suit actions to words, using soft, gentle touches.]
soft things to feel,
soft things to touch.
A cushioned chair,
A furry muff,
A baby's cheek,
A powder puff,
A bedtime kiss,
A gentle breeze,
My puppy's ear,
I love all these.

Hello Everybody

Hello, everybody, and how are you? [Suit action to words]
How are you, how are you?
Hello, everybody, and how are you?
How are you today?

If you're wearing red, you can stand up,
You can stand up, you can stand up.
If you're wearing red, you can stand up,
You can stand up today.

Hello, everybody, now stand up quick,
Stand up quick, stand up quick.
Hello everybody, now stand up quick,
Stand up quick today.

Hello, everybody, jump up and down,
Jump up and down, jump up and down.
Hello everybody, jump up and down,
Jump up and down today.

Hello, everybody, you can sit down,
You can sit down, you can sit down.
Hello, everybody, you can sit down,
You can sit down today.

I'm Growing

I'm growing.	[Hands above head.]
I'm growing up all over.	[Point all over body.]
Every Monday, Tuesday,	[Count days of the
Wednesday, Thursday,	week on fingers.]
Friday, Saturday and Sunday,	
I'm growing here,	[Point to head.]
I'm growing there.	[Point to feet.]
I'm just growing everywhere.	[Point all over the body.]
I see someone who is growing, too.	[As the various
She has brown and white on her shoe.	children are
Her socks are white.	described, they
Her dress is pink.	could be
Her name is *Jennifer*, I think.	introduced.]
Who do you see that's growing?	

Reach for the Ceiling

Reach for the ceiling,	[Suit actions to words.]
Touch the floor,	
Stand up again,	
Let's do some more.	
Touch your head,	
Then your knee,	
Up to your shoulders	
Like this, you see.	
Reach for the ceiling,	
Touch the floor,	
That's all now,	
There isn't any more.	

This Is My Right Hand

This is my right hand.	[Suit actions to words.]
I raise it high.	
This is my left hand.	
I'll touch the sky.	
Right hand, left hand,	
Roll them round and round.	
Right hand, left hand,	
Pound, pound, pound.	

What Color Are You Wearing

Leader: Red, red, red, red, [Suit actions to words.]
Who is wearing red today?
Red, red, red, red,
Who is wearing red?

All Children with red showing: [This is repeated until
I am wearing red today. most of the common
Look at me and you colors are used.]
Will say
Red, red, red, red,
I am wearing red.

Enumeration

I have five fingers on each hand. [Hold up both hands with fingers outspread.]
Ten toes on both feet. [Point to feet.]
Two ears, two eyes, one mouth [Point to each.]
With which to gently speak.
My hands can clap. [Clap hands.]
My feet can tap. [Tap feet.]
My eyes can brightly shine. [Point to eyes with index fingers.]
My ears can hear. [Cup hands to ears.]
My nose can smell. [Point to nose and sniff.]
My mouth can speak a rhyme. [Point to mouth.]

Looking Glass [Tune of "I Went to the Animal Fair"]

I looked in my looking glass.
What kind of face did I see?
I saw a happy face looking at me.
I guess I'm happy today.

(This can be repeated with sad, angry, etc., allowing children to look in the mirror individually.)

Mary looked in her looking glass.
What kind of face did she see?
Mary saw a sad face looking at her.
I guess she's sad today.

Monkey See — Monkey Do

Oh, when you clap, clap, [Use motions as indicated
Clap your hands, by words.]
The monkey clap, clap, claps
His hands.

Chorus:
Monkey see, monkey do. [Motion toward monkey, then
The monkey does the towards self.]
Same as you.

And when you stamp, stamp, stamp your feet,
The monkey stamp, stamp, stamps his feet. [Repeat chorus.]

And when you jump, jump, jump up high,
The monkey jump, jump, jumps up high. [Repeat chorus.]

Wheels on the Bus

The wheels on the bus go round and round, [Suit actions to words.]
Round and round, round and round.
The wheels on the bus go round and round.
All through the town.

The people on the bus go up and down,
Up and down, up and down.
The people on the bus go up and down,
All through the town.

The money on the bus goes clink, clank, clunk,
Clink, clank, clunk; clink, clank, clunk.
The money on the bus goes clink, clank, clunk,
All through the town.

The driver on the bus says, "Move on back," etc.

The children on the bus say, "Yak, yak, yak," etc.

The mothers on the bus say, "Sh, sh, shh," etc.

The wipers on the bus go swish, swish, swish, etc.

The horn on the bus goes honk, honk, honk, etc.

The wheels on the bus go round and round,
Round and round, round and round.
The wheels on the bus go round and round,
All through the town.

The Toy Shop

Here is a window in a toy shop; [Form circle with arms.]
This is a round balloon that pops! [Form smaller circle — clap hands.]

This is a top that spins in a ring; [Twirl forefinger.]
This is a little bird that can sing; [Whistle.]
This is a soldier that can walk; [Make two fingers walk.]

This is a ma-ma doll that can talk; ["Ma-ma"]
This is a funny jumping-jack man; [Swing arms out suddenly.]

This is a sleepy Raggedy Ann. [Let arms and hand go limp — relax head.]

And now we will say "good-bye" to the toys,
And tip-toe away without any noise. [Move fingers in walking motion.]

APPENDIX B

CHORAL SPEAKING

Apple Season

Come up in the orchard with grass to your knees,
For we're going shaking the apple trees!
The boughs are laden, bent low to the ground,
And the apples thud with a gentle sound.
Bright red, dark red, smooth and gold,
Apples are sweet at the edge of cold!

Come up in the orchard with baskets now,
For we're going picking the apple bough!
Gather them from bright globes of fire,
Climb to the gnarled bough, climb up higher!
We're gathering apples with shout and song,
And we'll taste summer all winter long!

— Frances Frost

What To Do

What to do on a rainy day;
What to do.
What to do.
There must be a new kind of game to
play;
I wish I knew.
I wish I knew.

Sister is dressing her dolls again;
They're fine for her.
They're fine for her.
Cat and Kitten are washing themselves,
Cleaning their fur.
Cleaning their fur.

What to do while it rains outside;
Where to go.
Where to go.
I've already eaten, I've already
napped;
And the time goes slow.
The time goes slow.

But now I see some blue in the sky;
I see some blue.
I see some blue.
The clouds are parting; the wind
has changed;
And the rain is through.
The rain is through!

And soon I'll be out of the house
again;
I'll run and shout.
I'll run and shout.
I can think of a dozen things to do,
When the sun is out.
When the sun is out.

— William Wise

Halloween

"Granny, I saw a witch go by.
I saw two, I saw three!
I heard their skirts go swish, swish, swish—"

"Child, 'twas leaves against the sky,
And the autumn wind in the tree."

"Granny, broomsticks they bestrode,
Their hats were black as tar,
And buckles twinkled on their shoes—"

"You saw but shadows on the road,
The sparkle of a star."

"Granny, all their heels were red,
Their cats were big as sheep.
I heard a bat say to an owl—"

"Child, you must go straight to bed,
'Tis time you were asleep."

"Granny, I saw men in green,
Their eyes shone fiery red,
Their heads were yellow pumpkins—"

"Now you've told me what you've seen,
WILL you go to bed?"

"Granny?"

"Well?"

"Don't you believe—?"

"What?"

"What I've seen?"

"Don't you know it's Halloween?"

—Marie Lawson

A Pop Corn Song

All
Sing a song of pop corn
When the snowstorms rage;

Boys
Fifty little brown men
Put into a cage.

Girls
Shake them till they laugh and leap,
Crowding to the top,

All
Watch them burst their little coats.

Group 1	*Group 2*	*Group 3*
Pop!	Pop!	Pop!

Solo 1
Sing a song of pop corn
In the firelight;

Girls
Fifty little fairies
Robed in fleecy white.

Boys
Through the shinning wires see
How they skip and prance
To the music of the flames;

Group 4	*Group 5*	*Group 6*
Dance ! !	Dance ! !	Dance ! !

—Nancy Byrd Turner

The River Is A Piece Of The Sky

From the top of a bridge
The river below
Is a piece of the sky—
  Until you throw
  A penny in
  Or a cockleshell
  Or a pebble or two
  Or a bicycle bell
  Or a cobblestone
  Or a fat man's cane—
And then you can see
It's a river again.

The difference you'll see
When you drop your penny;
The river has splashes,
The sky hasn't any.

—John Ciardi

PAT-A-CAKE

All
Pat-a-cake, pat-a-cake, baker's man!
Make me a cake as fast as you can.

Solo 1
Pat it,

Solo 2
and prick it.

Solo 3
And mark it with T,

All
And bake in the oven
For Baby and me.

—Mother Goose Rhyme

Picnic Day

Sing a song of picnics,
  Bread and butter spread,
Greenery all around about,
  And cheeries overhead!

— Rachel Field

APPENDIX C

BOOKS FOR PATTERN WRITING

The following children's books or series of books are useful for doing patterned writing and creative writing.

Anglund, Joan Walsh. A FRIEND IS SOMEONE WHO LIKES YOU. Harcourt, Brace and World, Inc., 1983.
Ashford, Ann. IF I FOUND A WISTFUL UNICORN. Peachtree Publishers, 1978.
Barrett, Judi. ANIMALS SHOULD DEFINITELY NOT WEAR CLOTHING. 1985.
Barry, Katharina. A BUG IS TO HUG. Harcourt, Brace and World.
Blossom, Budney. A KISS IS ROUND. H. W. Wilson Company.
Browne, Anthony. THROUGH THE MAGIC MIRROR. Greenwillow Books.
Browne, Margaret Wise. WHERE HAVE YOU BEEN? Harper and Row.
Burton, Virginia Lee. THE LITTLE HOUSE. Houghton Mifflin, 1942.
Cameron, Polly. "I CAN'T," SAID THE ANT. Scholastic Book.
Charlip, Remy. WHAT GOOD LUCK! WHAT BAD LUCK! Scholastic Magazine.
Dalgliesh, Alice. THE COURAGE OF SARAH NOBLE. Scribner's, 1954.
DeRegniers, Beatrice Schenk. MAY I BRING A FRIEND? Atheneum, 1964.
Einsel, Walter. DID YOU EVER SEE? Scholastic Magazine.
Emberly, Barbara. DRUMMER HOFF. Prentice-Hall.
Emberly, Ed. THE WING ON A FLEA. Little, Brown, and Company.
Heide, Florence. SOME THINGS ARE SCARY. Scholastic Books.
Heilbroner, Joan. THIS IS THE HOUSE WHERE JACK LIVES. Harper and Row, 1961.
Himler, Ronald. WAKE UP, JEREMIAH. Harper and Row Publishers, 1979.
Hoff, Syd. AMY'S DINOSAUR. Windmill Books and E.P.
Joslin, Sesyle. WHAT DO YOU SAY, DEAR? Scholastic Books.
Julian, Scheer. RAIN MAKES APPLESAUCE. Holiday House.
Karp, Laura. OPPOSITES. World Publishing Company.
Keates, Ezra Jack. THE SNOWY DAY. Viking.
Krauss, Ruth. A HOLE IS TO DIG. Harper and Row, 1982.
Krauss, Ruth. MAMA, I WISH I WAS SNOW. Scholastic Books.
Krauss, Ruth and Johnson. IS THIS YOU? Scholastic Books.
Lidgren, Astrid. THE TOMTEN. Coward, McCann and Geoghegan, Inc.
Lidgren, Astrid, PIPPI LONG STOCKING. Viking.
Lionni, Leo. FREDERICK. Pantheon, 1966.
Lionni, Leo. TICO AND THE GOLDEN WINGS. Pantheon.
Lionni, Leo. GERALDINE, THE MUSIC MOUSE. Pantheon, 1979.
Lionni, Leo. SWIMMY. Pantheon, 1963.
Lionni, Leo. ON MY BEACH ARE MANY PEBBLES. Pantheon, 1961.
Lobel, Arnold. OWL AT HOME. Harper and Row Publishers, 1982.
Martin, Bill, Jr. BROWN BEAR, BROWN BEAR. Holt, Rinehart and Winston.
Martin, Bill, Jr. DAVID WAS MADE. Holt, Rinehart and Winston.
Martin, Bill, Jr. INSTANT READERS SERIES. Holt, Rinehart and Winston.
Martin, Bill, Jr. TEN LITTLE CATERPILLARS. Holt, Rinehart and Winston.
Mayer, Mercer. A SILLY STORY. Parents Magazine Press, 1983.
Membling, Carl. HI, ALL YOU RABBITS. Parents' Magazine Press.
Newberry, Clare. MARSHMELLOW. Harper and Row, 1942.
O'Neill, Mary. HAILSTONES AND HALIBUT BONES. Scholastic Books.
Parish, Peggy. THANK-YOU, AMELIA BEDELIA. Harper and Row, 1983.
Sanders, Martha. ALEXANDER AND THE MAGIC MOUSE. American Heritage Press.
Schulz, Charles. "HAPPINESS IS . . ." Determined Productions, Inc.
Schulz, Charles. "LOVE IS . . ." Determined Productions, Inc.
Sendak, Maurice. CHICKEN SOUP WITH RICE. Scholastic Books, 1970.
Sendak, Maurice. WHERE THE WILD THINGS ARE. Harper and Row, 1963.
Seuss, Dr. ONE FISH, TWO FISH. Random House.
Skorpen, Liesel Moak. WE WERE TIRED OF LIVING IN A HOUSE. Coward-McCann, Inc.
Sullivan, Joan. ROUND IS A PANCAKE. Holt, Rinehart and Winston.

Udry, Janice. A TREE IS NICE. Harper and Row, 1956.
Viorst, Judith. MY MAMA SAYS THERE AREN'T ANY ZOMBIES, GHOSTS, VAMPIRES, CREATURES, DEMONS, MONSTERS, FIENDS, GOBLINS, OR THINGS. Atheneum, 1973.
Viorst, Judith. THE TENTH GOOD THING ABOUT BARNEY. Atheneum, 1975.
Walker, Barbara. I PACKED MY TRUNK. Follett.
Wildsmith, Brian. WHAT THE MOON SAW. Oxford University Press, 1978.
Wright, H. R. A MAKER OF BOXES. Holt, Rinehart and Winston.
Zolotow, Charlotte. MAY I VISIT? Harper and Row Publishers, 1976.
Zolotow, Charlotte. ONE STEP . . . Lothrop, Lee and Shepard Company, 1981.
Zolotow, Charlotte. DO YOU KNOW WHAT I'LL DO? Harper and Row Publishers, 1958.
Zolotow, Charlotte. SLEEPY BOOK. Lothrop, Lee and Shepard Company.

APPENDIX D

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Lawson, Marie A. HALLOWEEEN, A CHILD'S LIFE. Rand McNally and Company, 1956.
Sanders, Norris M. CLASSROOM QUESTIONS: WHAT KIND? Harper and Row Publishers, 1966.
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Welty, Don A., Dorothy B. Welty. THE TEACHER AIDE IN THE INSTRUCTIONAL TEAM. Gregg Division, McGraw Hill Book Co., 1976.

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"Classroom Cooking," Division of Kindergarten-Early Childhood Education, North Carolina Department of Public Education, 1975.
"Ring a Ring O' Roses," Flint Public Library, Kearsley Street, Flint, Michigan 48502. Permission to print.

APPENDIX E

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